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‘Population Screening for Chronic Disease –
Maximising Benefits, Minimising Harms’

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Abstract Book



Resources supporting otitis media screening for Aboriginal and Torres Strait Islander children.

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2B - Indigenous & Priority Populations, Town Hall, March 5, 2025, 11:00 AM - 12:30 PM

Background: Otitis media (OM) refer to a range of conditions that affect middle ear health and function. If undetected and unmanaged, chronic middle ear infections can affect a child's hearing, speech, language and education. In Australia, Aboriginal and Torres Strait Islander children continue to experience a disproportionately high burden from (OM), despite the existence of population ear health screening programs. A diverse range of primary health care professionals perform ear health screening across Australia, and require different types of information and training to support their practice.

Objectives: To use a policy analysis to determine the resources recommended for use by health professionals screening for OM in Aboriginal and Torres Strait Islander children.

Methods: Policies related OM screening in Aboriginal and Torres Strait Islander children were sought from national, state, territory and professional organisations through a clearly defined search process. Policies were critically appraised, relevant data extracted and data thematically analysed.

Results: Nineteen policies met the inclusion criteria for analysis. Twelve categories of resources were identified as being important for use by health professionals screening for OM in Aboriginal and Torres Strait Islander children. These included Professional Development, Equipment, Cultural Safety, Practice Guidelines, Human Resources, Patient Education, Data Systems, Transport, Time, Infection Control, Telehealth Infrastructure and Physical Infrastructure.

Conclusion: This research has demonstrated how a policy analysis may be used to identify resources available to health professionals working in a screening context. The outcomes of this analysis will be used to create data collection instruments to examine health professional awareness and use and confidence in use of these resources. In the long term, this research may improve awareness and access to resources to support OM screening among health professionals, which may improve the experiences and outcomes of Aboriginal and Torres Strait Islander children and families accessing OM screening services.

BRISK: breast cancer risk assessment in primary care

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Poster Displays, Pre-Function Area, March 4, 2025, 12:40 PM - 1:30 PM

The RACGP recommends women with family history of breast cancer be assessed using a validated risk assessment tool for additional support and management. As most women with breast cancer do not have a family history, this approach fails to recognise women at risk due other independent risk factors (e.g. breast density). Leading to increased interest in utilising risk assessment tools for risk-based screening.

We appraised existing risk prediction models from the perspective of feasibility and implementation in primary care. Multifactorial models e.g. BOADICEA and Tyrer-Cuzick show good discrimination for cancer cases and consider the combined effect of major risk factors. The extension of these models to include breast density and PRS, improved risk stratification and strengthened accuracy. iPrevent, a RACGP endorsed clinical resource currently excludes PRS for risk calculation. These comprehensive models are underused in primary care due to the labour-intensive nature of collecting complex pedigree data and medical history.

In contrast, BRISK model only requires limited family history, age, mammographic density, BMI, menopausal status and PRS for quick and easy use in a clinical setting₁. A prospective cohort study found improved discrimination and risk categorisation using BRISK when compared with Tyrer-Cuzick for remaining lifetime risk (AUC = 0.647 versus 0.571, P<0.0001)₁.

GPs play a crucial role in encouraging women to participate in screening and have been shown to positively impact screening participation. Only 50% of women aged 50-74 participate in the Australian national program₂, well below the accepted 70%. We plan to pilot BRISK in primary care as a potential feasible solution to conducting breast cancer risk assessment to inform risk-based screening pathways.

1. Allman R et al. 2023. Validation of a breast cancer risk prediction model based on the key risk factors: family history, mammographic density and polygenic risk.

2. AIHW Cancer Screening. Accessed June 20, 2024, <https://www.aihw.gov.au/reports/australias-health/cancer-screening-and-treatment>.

Anxiety increases the risk of osteoporosis and fracture in Australian women.

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2C - Psychosocial & ELSI, Wynyard & St. James, March 5, 2025, 11:00 AM - 12:30 PM

Previous studies found an association between anxiety and osteoporosis/fracture in adults; however, the relationship is under-researched globally. This longitudinal study examined osteoporosis and fracture risk in middle-aged Australian women with anxiety.

We analysed the survey and linked Pharmaceutical Benefits Scheme (PBS) data of 11,226 women from the Australian Longitudinal Study on Women's Health (ALSWH) born from 1946 to 1951 and followed up from 2001 to 2021. Anxiety was measured by affirmative answers to the survey question- "In past three years, have you been diagnosed or treated for: Anxiety/nervous disorder?" Osteoporosis was measured by the first prescription date of any antiosteoporosis medications from PBS. Fracture was measured by the affirmative answers to the survey question- "In the last 12 months, have you: Broken or fractured any bone/s?" The Fine and Gray competing risk regression model was used with death as a competing risk to examine osteoporosis and fracture risk among women with anxiety. Directed Acyclic Graphs were used to select potentially confounding variables. 745 women (6.7%) reported anxiety at baseline. Women reporting a diagnosis or treatment of osteoporosis before baseline were excluded from the analyses. Both unadjusted (SHR: 1.1; 95% CI: 1.03-1.17; p= 0.003) and adjusted (SHR: 1.1; 95% CI: 1.03-1.16; p= 0.004) models showed increased osteoporosis events among women with anxiety than women without anxiety. Both unadjusted (SHR: 1.42; 95% CI: 1.33-1.51; p <0.001) and adjusted (SHR: 1.41; 95% CI: 1.33-1.50; p <0.001) models also showed increased fracture events among women with anxiety than women without anxiety. We concluded that among the middle-aged women of the ALSWH 1946-1951 birth cohort, anxiety increased the risk of osteoporosis and fracture in twenty years. The results highlight the importance of regular bone health screening among women living with anxiety to prevent fracture-related morbidity and mortality in the community.

Providing equitable access to breast screen for women in a Melbourne custodial setting

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3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Background:

Women in custody face unique healthcare challenges. Western Health (WH) aims to improve access to preventative healthcare. Early detection through regular breast screens improves breast cancer survival rates. To date, breast screening options have not been available in Dame Phyllis Frost Centre (DPFC).

Method:

WH, in partnership with BreastScreen Victoria (BSV), introduced a mobile screening service (MSS) at DPFC to reduce barriers and provide essential care. The MSS visited DPFC for two days in 2024. Thirty-six eligible women aged 50 and over were identified from DPFC database and sent personalised flyers, including versions for Aboriginal and Torres Strait Islander women. Information sheets were provided in English and translated in Vietnamese and Cantonese. Interpreter services were provided. Aboriginal and Torres Strait Islander women had the option to be accompanied by a health liaison officer. If further assessment was required, a letter was sent to women and health centre at DPFC. An external assessment process was established with guidance from BSV's Bendigo Reading and Assessment Service (RAS) and follow up tests were managed by WH.

Results:

Thirty-three breast screens were conducted; 21 were pre-booked and 12 were walk-ins. Two women identified as Aboriginal and Torres Strait Islander, 14 spoke a language other than English, primarily Vietnamese (5), Cantonese (2), and Spanish (2). Twenty-eight women were first time screeners, 5 were overdue, and 6 required further assessment. Many women expressed gratitude for the service and opportunity to participate in screening.

Outcomes:

Providing a targeted, supportive, and culturally appropriate approach is beneficial for screening participation. Having the MSS on site enabled significant cost savings and allowed women to access screening in a safe custodial environment. The opportunity to actively engage in their health along with a positive breast screening experience, may contribute to women sustaining their breast healthcare within the community.

The impact of population-based breast density notification: a screening program-embedded RCT

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3A - New Evidence to Inform Existing Programs 2, Central, March 5, 2025, 1:30 PM - 3:00 PM

Background: Internationally the ongoing debate about the benefits and harms of implementing population-based breast density notification lacks robust outcomes data. This trial investigated the effect of notifying women with dense breasts of their density on their psychosocial outcomes and health services use intention.

Methods: Co-designed randomised controlled trial conducted through the population-based breast screening program in Queensland, Australia. Women aged ≥ 40 years classified as having mammographically-dense breasts (BI-RADS C-D) were randomised (1:1:1) to standard care (control: no notification of breast density), notification of breast density plus a hard-copy written health literacy-sensitive information (intervention-1), or notification of density plus a link to online written and video-based health literacy-sensitive information (intervention-2). Primary outcomes were psychological and health service use intentions post-screening; analyses used linear and generalised linear models.

Results Between September 2023 to July 2024, 1030 women were allocated to the control arm, 1003 women to intervention-1 and 1074 to intervention-2 (with 228, 227 and 251 women lost-to-follow-up respectively). 802 women in the control, 776 in intervention-1 and 823 in intervention-2 were included in the primary analyses. No significant differences were found for agreement that notification made women feel anxious (control vs intervention-1, $p=0.14$) or informed to make decisions regarding breast health (control vs intervention-1 ($p=0.58$) or intervention-2 ($p=0.58$)). Significant differences were found for feeling anxious (control vs intervention-2, $p=0.001$) or confused (control vs intervention-1 ($p<0.001$) or intervention-2 ($p<0.001$); and in proportions of women intending to discuss results with doctor (control vs intervention-1 ($p<0.001$) or intervention-2 ($p<0.001$)) or to go for additional screening tests (control vs intervention-1 ($p<0.001$) or intervention-2 ($p=0.006$)).

Conclusions: Women notified about their breast density at screening are confused, do not feel more informed to make decisions regarding their breasts, and have little consideration for supplemental screening. The utility of population-based breast density notification should be further considered.

Population Screening with Aboriginal and Torres Strait Islander Health Workers and Practitioners

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2B - Indigenous & Priority Populations, Town Hall, March 5, 2025, 11:00 AM - 12:30 PM

The National Association of Aboriginal and Torres Strait Islander Health Workers and Practitioners (NAATSIHWP) is the national peak workforce organisation striving to ensure that Aboriginal and/or Torres Strait Islander Health Workers and Health Practitioners are embedded as a vital, valued, and professional part of Australia's health care system.

Their practical, comprehensive primary health care training enables them to work both independently and within multidisciplinary teams across all health care settings. As the only culturally based health professions underpinned by national training and registration in the world, they play a unique and critical role in restoring trust, acting as health system navigators, and improving Aboriginal and Torres Strait Islander access to quality culturally safe health care. Additionally, the professions also play a fundamental role in designing, implementing, and evaluating early intervention and prevention initiatives for Aboriginal and Torres Strait Islander people and communities.

There is a pressing need to better incorporate the professions in population screening for Aboriginal and Torres Strait Islander people. When appropriately integrated into health assessment procedures, they are instrumental in supporting the early detection, diagnosis and intervention of common and treatable conditions that disproportionately cause morbidity and early mortality for Aboriginal and Torres Strait Islander people. In recognising the critical role they play, the professions are eligible and entitled to claim Medicare Benefit Scheme (MBS) items related to Aboriginal and Torres Strait Islander health assessments, GP Management Plans and Team Care Arrangements, and GP Mental Health Treatment Plans. To improve the health and well-being outcomes of Aboriginal and Torres Strait Islander people they must be given opportunities to work to their full scope of practice and participate in Aboriginal and Torres Strait Islander Health screening.

'That's an informed choice': Women's mammography screening - A social class analysis

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3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Introduction:

Since monitoring began in 1996, Australian mammography screening rates have remained below the 70% target. Previous research on the enablers / barriers to screening has considered socio-economic variables, but social class and how varying combinations of social, cultural and economic capital impacts participation in disease prevention has received less attention. This study elucidates the social class conditions that shape women's participation in mammography screening.

Methods:

Semi-structured interviews were conducted with 36 midlife women (50-64 years) from different social class groups. Women were asked open-ended questions about breast cancer risks, which raised mammography discussions. Women self-identified as 'screeners' / 'non-screeners' and were asked about factors that shaped their perceived 'informed' choices. The analysis was guided by Friedman's study using the 'sociology of attention,' that identified four 'attentional' screening types (default or conscious interventionists, conflicted or conscious skeptics). Social theory helped to organize data and identify patterns in screening identities explorable through a social class lens.

Results:

While 'screeners' / 'non-screeners' appeared in all social class groups, their attention and choices regarding their (non)participation differed. 'Screeners' rarely raised screening benefits or harms, with participation considered a 'given.' Middle-class women discussed self-responsibility for health - screening was part of this, fulfilling social expectations. Working-class women felt obligated to comply with authority. Among 'non-screeners' affluent women used their cultural capital to make informed choices, weighing screening benefits and harms with their perceived healthy lifestyles. Working-class women passively became 'non-screeners' due to reduced cultural health capital and more difficult life factors resulting from their social class position.

Conclusion:

Our analysis shows 'informed' choice regarding mammography screening is not available to all women. Addressing the social class factors underlying this is crucial for equitable breast cancer prevention. Our results support the National Preventive Health Strategy's call for tailored screening approaches to deliver the most benefit.

Connecting with cultural ambassadors to increase engagement with bowel cancer screening

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3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Background

People from culturally and linguistically diverse backgrounds face unique barriers to participation in cancer screening programs. Cancer Council WA undertook a pilot program that aimed to increase bowel cancer awareness and encourage participation in the National Bowel Cancer Screening Program (NBCSP) among Indian-born Western Australians.

Methods

Volunteer ambassadors were recruited from the Indian-born Western Australian community. Ambassadors and Cancer Council WA collaborated to co-design culturally appropriate community activities that incorporated a bowel cancer screening education session, which included a demonstration of the NBCSP kit. At each education session, attendees completed pre-and-post evaluation surveys, and reported their awareness of and willingness to engage with the NBCSP.

Results

A total of 137 adults attended six education sessions, of whom 115 completed pre-and-post evaluation surveys. Most survey respondents (90%) were born in India, with the remainder born in other countries. In pre-session surveys, one in ten attendees who were eligible for NBSCP screening reported that they would not use a bowel cancer screening kit or were unsure whether they would. Following the education session, all these attendees said they were more likely to use a kit. In post-session surveys, 98% of attendees said they were very likely or somewhat likely to talk about bowel cancer screening with family, family or community members after attending the session. In open text survey responses, attendees reported that the activities were helpful, informative, and clear.

Conclusion

This program found that recruiting ambassadors to co-design and deliver culturally safe education sessions is an effective way of encouraging engagement with bowel cancer screening programs among CaLD communities. These findings encourage us to extend this approach to other priority communities and potentially to the promotion of participation in other national screening programs.

Health Equity for ALL: Evaluating the Alternative Access Model for priority populations

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2B - Indigenous & Priority Populations, Town Hall, March 5, 2025, 11:00 AM - 12:30 PM

Aims

This study assessed the acceptability and feasibility of the Alternative Access Model (AAM) for Faecal Immunochemical Test (FIT) access, recently introduced by the National Bowel Cancer Screening Program (NBCSP), within the Mandarin-speaking Chinese community.

Methods

Five focus group discussions with 50 Mandarin-speaking men and women aged between 45 and 74 were facilitated. Discussions explored awareness, understanding, and experiences of bowel cancer screening, including the AAM, which involves provision of FIT through General Practices.

Results

Community members indicated commitment to proactive health activities. They confirmed the important role of the General Practice in advocating and supporting screening participation, especially for first-time screeners. Integrating the screening program into annual check-ups, and other care plans, was recommended.

Language was a major barrier; many struggled with English invitation letters and instructions, relying on family/friends for translation. The national free translation service was rarely used because of long wait times. FIT procedural challenges included discomfort with storing samples in the refrigerator and difficulties accessing post offices/mailbox to mail kits. Some indicated that their asymptomatic good health negated the need for screening. Community members showed a lack of knowledge about bowel health, and the importance and benefits of screening. Self-efficacy was another barrier for screening participation, with some preferring colonoscopy, without knowing the risks associated with unnecessary colonoscopy.

Strategies identified for increasing participation in screening included having materials in first language, leveraging GP endorsements and support, running tailored promotional campaign through popular platforms favoured by specific community (e.g., WeChat channel), and promotion and education at cultural events where community members gather to celebrate.

Conclusion

Focus groups highlighted barriers to bowel cancer screening in the Chinese community, emphasising the need for tailored, people-first strategies, co-developed with and for communities to address specific community needs in order to improve uptake in screening initiatives.

Equitable access for ALL: Evaluating the Alternative Access Model with HealthCare Providers

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1C - New Evidence to Inform Existing Programs 1, Wynyard & St. James, March 4, 2025, 1:30 PM - 3:00 PM

Aims

This study evaluated the acceptability and feasibility of the Alternative Access Model (AAM) for Faecal Immunochemical Test (FIT) access, recently implemented by the National Bowel Cancer Screening Program, among primary healthcare providers.

Methods

The qualitative approach comprised 24 semi-structured interviews with primary healthcare providers (HCPs) [Practice Nurses, General Practitioners (GPs) and Practice Managers] designed to explore awareness, understanding, and experiences related to use of the AAM. Strategies to enhance the model's acceptability and feasibility were investigated.

Results

Findings indicated poor awareness of the AAM among most staff in General Practices serving communities from different cultural backgrounds. After explanation, most staff believed that AAM is a great initiative, and implementation is feasible, only if modifying existing procedures for ordering and distributing screening kits would require minimal additional work.

Barriers to acceptability included insufficient awareness, information, training and resources for AAM. Discussions about the critical steps required to implement the AAM - creating a PRODA account and accessing the healthcare provider portal highlighted concerns and challenges about integrating clinical software with the National Screening Register, and the need for ongoing technical support. Time constraints were also noted; some GPs preferred to provide screening kits (given by pathology providers) directly. Additionally, providers suggested that entrenched patient health beliefs hindered progress, with some GPs struggling to change patients' preferences for colonoscopy over FITs.

To facilitate AAM adoption, HCPs recommended developing/refining an educational resource pack that helps providers initiate culturally sensitive conversations about the screening program, along with awareness-raising printed and online materials, to engage patients in clinical settings.

Conclusion

This study identifies key barriers to AAM adoption, mainly, awareness and technical integration. Despite these challenges, interest in the AAM suggests potential for effective implementation with adequate support. Recommendations for educational resources and awareness raising initiatives are vital to encourage priority populations' screening participation.

PARTICIPATION IN CERVICAL SCREENING IN THOSE WHO WERE NEVER- OR UNDER-SCREENED.

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1C - New Evidence to Inform Existing Programs 1, Wynyard & St. James, March 4, 2025, 1:30 PM - 3:00

PM

Objective:

The linkage of the National Cervical Screening Program (NCSP) to the Medicare database allowed the identification and invitation of people who had never been screened and those overdue for screening. Response rates after initial invitation letters sent to this group are reported.

Methods:

All eligible people aged 30-74 in the NCSR who had never been screened or whose last screening test was more than eight years ago (under-screener) were identified. Over an 18-month period starting on July 1, 2022, they were sent an invitation to screen. The primary outcome was participation in screening, indicated by the notification of a cervical screening test to the NCSR.

Results:

A total of 2,391,348 people were identified as eligible for the invitation on the 1st of July 2022. Invitations were generated over a period of 18 months and between being identified as eligible and the letter being generated some people were no longer eligible. The final eligible cohort sent an invitation was 2,058,088 (86%) of whom 1,167,113 were under screeners, and 890,975 were never screeners. Of invites sent, a sizeable proportion were returned to sender (RTS) in both the under- (17.6%) and never-screener (15.6%). Only 4.5% (n=92,588/2,058,088) of the final eligible cohort participated in screening. The participation rate was significantly higher in the never-screener than in under-screener (5.18% vs 3.98%, p<0.001). However, self-collection uptake was significantly higher in the under-screener than in the never-screener (1.27% vs 1.06% p<0.001). Of note, over 30% of the under-screened cohort records were old jurisdictional records with no Medicare identifier.

Conclusion:

Overall, the screening participation rate was low for both under and never-screened people, possibly because a significant proportion of the under-screened population have outdated addresses or may no longer reside in Australia. Consideration of specifically tailored correspondence for the under-screened population targeting those with up-to-date Medicare records may assist in reaching the intended participants and increase the likelihood of their engagement with the NCSP.

INITIAL EXPERIENCE WITH UNIVERSAL ELIGIBILITY FOR SELF-COLLECTED HPV CERVICAL SCREENING IN AUSTRALIA

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3A - New Evidence to Inform Existing Programs 2, Central, March 5, 2025, 1:30 PM - 3:00 PM

Objectives: Australia's HPV-based National Cervical Screening Program initially (December 2017-June 2022) offered self-collection (SC) to people aged 30+ who were overdue by ≥ 2 years or unscreened. In July 2022, SC eligibility expanded to all screen-eligible people. This study assessed the impact of expanded access to SC on uptake and compared detection of histologic high-grade lesions and cancers between SC and clinician-collected (CC) samples in those directly referred for colposcopy (HPV16/18 or HPV not 16/18 with liquid-based cytology (LBC) prediction of possible high-grade or worse or any glandular abnormality; pHSIL+).

Design: Observational study.

Setting: Australia.

Participants: People aged 25 to 74 years who had one or more cervical screening tests (primary screening and follow-up HPV tests) between 1 December 2017 and 31 December 2023.

Main outcome measures: SC uptake was calculated as a proportion of all cervical screening tests, stratified by age, screening history, and area-level socio-economic status (SES) and geographic remoteness. HPV positivity rates were compared between SC and CC samples. Odds of detecting high-grade lesions and cancer in SC versus CC samples were calculated for HPV 16/18 and HPV not 16/18 with pHSIL+ LBC, using multivariate logistic regression model.

Results: SC uptake increased from 1.2% in April-June 2022 to 26.9% in October-December 2023, with the highest increase in those >10 years overdue for screening and those in remote or disadvantaged areas. HPV positivity rates were highest in under-screened SC users. High-grade detection was similar between SC and CC after adjusting for age, SES, remoteness, and screening history among those with HPV 16/18 (OR: 0.96, 95% CI: 0.81 to 1.13; $p=0.630$) and those with HPV not 16/18 with pHSIL+ LBC (OR: 0.87, 95% CI: 0.67 to 1.13; $p=0.299$). Cancer detection was also comparable between SC and CC.

Conclusions: SC uptake increased following expanded access, especially among under-screened groups. Detection of high-grade lesions and cancer was comparable in CC and SC.

Early detection of prostate cancer. A review of Australian Guidelines.

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3A - New Evidence to Inform Existing Programs 2, Central, March 5, 2025, 1:30 PM - 3:00 PM

Background: The Australian Clinical Practice Guidelines on prostate cancer testing recommend shared decision-making in asymptomatic men aged 50-69 prior to testing. These guidelines, endorsed by NHMRC and released in 2016 have expired and are currently being reviewed. We describe the process of the evidence review and the likely future for early detection for prostate cancer in Australia.

Methods: An Expert Advisory Panel was established, engaging over 60 consumers, general practitioners, specialists, pathologists, researchers, and policy makers from major Australian peak bodies. This Panel reviewed the 21 existing recommendations, set priorities, engaged horizon scanning reviews, identified topics for systematic review and developed clinical questions and PICOs for those topics. Systematic reviews were undertaken following NHMRC guidelines for guidelines. The GRADE Evidence to Decision Framework was used to develop recommendations based on the evidence.

Results: The international trials evaluating the mortality benefits of PSA testing, in the pre-mpMRI era, have matured and show a lower risk of death from prostate cancer in screened men aged 55-69. Recent advances in imaging (mpMRI), diagnostic practices (transperineal and targeted biopsies) and management of patients with low-risk disease with active surveillance have reduced the risk of harms previously associated with “overdiagnosis” and over-treatment. For example, active surveillance is recommended for men with early-stage disease and over 80% of Australians with low-risk disease are initially managed this way.

Discussion: Evidence shows that the balance of benefits and harms of testing for prostate cancer have changed. In the future, a more nuanced approach to early detection of prostate cancer is expected. Risk-adapted approaches, already being piloted internationally, including identification and triage based on risk categories (such as age, family history, genetics, baseline PSA levels and prostate mpMRI) will likely result in a more organised approach to early detection of Australia’s most common cancer.

Remaining treatment gaps impact on the care cascade of HCV-related hepatocellular carcinoma

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Poster Displays, Pre-Function Area, March 4, 2025, 12:40 PM - 1:30 PM

Background and Aim: Direct acting antivirals (DAAs) for chronic hepatitis C (HCV) were made universally available in Australia in 2016. We aimed to describe the impact of achieving SVR on HCC surveillance, HCC stage at diagnosis, treatment receipt and survival.

Methods: Incident HCC cases were retrospectively identified between 1st January 2018 to 31st December 2021 from six tertiary hospital networks in Melbourne, Australia and followed up to 31st October 2023. Bivariable analysis was conducted using Chi square and Wilcoxon rank-sum test, and Cox multivariable regression models determined factors associated with overall survival.

Results: 1013 incident cases of HCC were diagnosed, 35% (n=348) due to HCV. SVR data were available for 98% (341/348): 61% with HCV-HCC (208/341) had SVR from antiviral treatment with median time to HCC diagnosis from documented SVR of 1043 days (IQR 574, 1532). 8%(18/208) had not been assessed as having cirrhosis prior to HCC diagnosis, 11 of whom had additional risk factors for cirrhosis. More cases with SVR had at least one surveillance scan in the year prior to HCC diagnosis (64% 133/208 vs 18%, 24/133; p<0.001), had early BCLC stage (59%, 122/208 vs 40%, 52/130) (p=0.001) and first line curative therapy (40%, 83/208 vs 27%, 27/133) (p=0.015). Fewer deaths occurred in individuals with SVR (42%, 74/178 vs 59%, 67/114; p=0.004) with shorter median time to death following HCC diagnosis (11.9 months IQR 5.3, 21.4 vs 6.0 months IQR 2.7, 15.7 (p=0.02). SVR associated with improved survival post HCC diagnosis (log rank HR 0.57; 95% CI 0.41-0.79; p=0.001).

Conclusion: A significant proportion of people with HCV-HCC remain untreated, have not been evaluated for cirrhosis and have not been enrolled in surveillance. Greater investment in health promotion and education to identify patients with HCV, increase uptake of liver fibrosis assessment and HCC surveillance is urgently needed to improve outcomes and reduce deaths from HCV-HCC.

Healthcare workers' preferences in heart disease screening: A systematic review

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2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

Background

Healthcare workers' play a crucial role in the success of heart disease screening programs. However, screening for heart disease remains underutilized due to organizational barriers such as time constraints, user knowledge of the intervention, workforce constraints and turnover and availability of resources. Therefore, it is important to understand the preferences of healthcare workers on how to best integrate heart disease screening in routine practice.

Methods

Five databases were systematically searched for studies that reported on healthcare workers' opinions, thoughts, and preferences on heart disease screening published between January 2013 and August 2023 were included. Thematic analysis was conducted to identify patterns and themes across included studies, and the quality of studies was assessed using the mixed methods appraisal tool.

Results

The initial search yielded 4624 articles, with 21 meeting the inclusion criteria. Included studies represented diverse healthcare settings and research methodologies. The identified themes were categorized into two overarching themes 'screening preferences' and 'implementation of screening into practice'. Screening preferences included choice of screening device, frequency of screening, and screening population. The latter identified the crucial elements healthcare professionals prioritize when integrating screening procedures into their daily routines i.e., Change Management, Governance, Communication, Costs, and Infrastructure.

Conclusion

Understanding healthcare workers' preferences and addressing organizational barriers are essential for effective implementation. By integrating their insights into practice, heart diseases can be detected early, optimizing patient outcomes and mitigate the burden of heart diseases on individuals and society.

Training health workers improves early detection of breast cancer in priority populations

Dr Rehana Salam¹

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2B - Indigenous & Priority Populations, Town Hall, March 5, 2025, 11:00 AM - 12:30 PM

Background: Clinical breast examination (CBE) is an inexpensive early detection technique for breast cancer in women with palpable breast masses. Training health workers from low- middle- income countries (LMICs) to conduct CBE has the potential to detect breast cancers early.

Objectives: We aimed to assess whether training in CBE affects the ability of health workers in LMICs to detect early breast cancer.

Methods: We searched the Cochrane Breast Cancer Specialised Registry, CENTRAL, MEDLINE, Embase, the World Health Organization International Clinical Trials Registry Platform (ICTRP) search portal, and ClinicalTrials. Two review authors independently screened studies for inclusion, and extracted data, assessed risk of bias, and assessed the certainty of the evidence using the GRADE approach.

Results: We included four trials that screened a total population of 947,190 women for breast cancer, out of which 593 breast cancers were diagnosed. All studies were conducted in LMICs of India, Rwanda, and Philippines. Health workers trained to perform CBE in the included studies were primary health workers, nurses, midwives, and community health workers. Findings suggest that training health workers in CBE may increase the number of women detected with breast cancer at an early stage (risk ratio (RR) 1.44, 95% confidence interval (CI) 1.01 to 2.06; three studies; 593 participants; low-certainty evidence) and may slightly reduce the number of women detected with breast cancer at late stage (RR 0.58, 95% CI 0.36 to 0.94; three studies; 593 participants; low-certainty evidence) compared to the non-training group. Evidence is uncertain for the impact on breast cancer mortality. Sensitivity of health worker performed CBE ranged between 51.7% and 53.2%; while specificity ranged between 94.3% and 100%. Mean adherence to screening was reported to be 67% while compliance rates for diagnostic confirmation following a positive CBE were 68.29%, 71.20%, 78.84% and 79.98% during the respective first four rounds of screening in the intervention group.

Conclusion: Our review findings suggest some benefit of training health workers from LMICs in CBE on early detection of breast cancer. However, the evidence regarding mortality, accuracy of health worker-performed CBE, and completion of follow up is uncertain and requires further evaluation.

Why tailored screening campaigns for multicultural communities are necessary and highly effective.

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3B - Cultural & Linguistic Diversity, Town Hall, March 5, 2025, 1:30 PM - 3:00 PM

Background and aims: Participation in the National Bowel Cancer Screening Program (NBCSP) is significantly lower for many non-English speaking Australians compared to English-speaking Australians (24.4-31.2% c.f. 40%). Formative research with Hindi, Punjabi and Vietnamese-speaking communities living in Victoria identified significant barriers to participation including low bowel cancer awareness and knowledge, and low perceived personal susceptibility due to their cultural background. Based on these findings, a targeted bowel screening campaign was developed, featuring culturally tailored messaging and relevant creative materials that aimed to overcome these barriers by increasing bowel screening awareness and knowledge, dispelling misconceptions and driving screening intentions and participation amongst these three communities.

Methods: Six online focus groups with under-screened community members and 9 community influencer interviews were conducted to evaluate the 2023 Victorian multicultural bowel screening campaign. Discussions examined the understanding, believability, relevance and motivational impact of campaign materials.

Results: The campaign was perceived as highly acceptable and engaging by all three communities.

Findings showed the multicultural bowel campaign:

- had considerable potential to raise awareness and knowledge of bowel cancer risk, as well as the existence of a free bowel screening program. Although most recalled receiving the kit, many didn't know its purpose, and those who did screen often believed a negative result meant they didn't need to screen again.
- effectively addressed barriers and facilitators to increase personal susceptibility by challenging common misbeliefs that bowel cancer is a Western disease, a healthy diet will provide immunity, and that screening is only necessary if symptomatic.
- emphasised the importance of early detection messaging to live longer and stay healthy for the family, which was a critical motivator.
- provided authority and credibility when delivered through community-specific bi-cultural General Practitioners which increased the believability of incidence and risk messages and increased intentions to screen.

Conclusion: The success of this tailored campaign for multicultural communities demonstrates the importance and effectiveness of conducting formative research to gather insights unique to each community. This enabled campaign messaging and creative to be tailored specifically for each community, resulting in easy-to-understand messages that were comprehensible, meaningful and more likely to drive action.

Uncovering cervical screening and HPV knowledge gaps. Insights for increasing screening participation.

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2C - Psychosocial & ELSI, Wynyard & St. James, March 5, 2025, 11:00 AM - 12:30 PM

Introduction:

Health behaviour change models advocate that individuals must understand their susceptibility to an illness, how it affects their life, the benefits and barriers to changing behaviour and possess self-efficacy for successful change. To achieve this an individual must have basic knowledge about the health issue. This project synthesises findings from several studies uncovering alarmingly poor knowledge among Victorians concerning key information about cervical screening, HPV and its link to cervical cancer.

Methods:

We conducted multiple studies between 2022 and 2024 with Victorians eligible for cervical screening. Data from three population surveys measuring cervical screening knowledge were included (n=2281 respondents). Two qualitative studies explored cervical screening knowledge through interviews (n=10) and focus groups (n=53) with under and never screened Victorians. A third study explored knowledge and attitudes towards self-collection with 67 under-screened Arabic, Mandarin and Cantonese speaking Victorians.

Results:

Survey data consistently demonstrated poor cervical screening knowledge. Less than half of respondents correctly identified screening commencement age or testing interval or were aware of the link between HPV, cervical screening and cervical cancer. Qualitative research found that participants were excited about self-collection but did not trust the accuracy of the test or their ability to do the test correctly as they did not understand it was looking for HPV. A study exploring patient experiences of receiving an abnormal Cervical Screening Test described how information needs are not being met by healthcare practitioners, leading to misunderstandings about cancer risk and causing anxiety.

Conclusions:

Multi-study findings demonstrate a cervical screening and HPV knowledge gap across both mainstream Victorian audiences and multicultural communities. Without this fundamental knowledge, motivational campaigns and programs may be less impactful and participation inequity may be exacerbated. Knowledge focused campaigns and targeted healthcare provider education will be key to boosting screening confidence, intentions and participation in under-screened groups.

Using patient insights to improve colposcopy experience through tailored information and support

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1C - New Evidence to Inform Existing Programs 1, Wynyard & St. James, March 4, 2025, 1:30 PM - 3:00 PM

Background and aim

Thousands of Victorians are referred to colposcopy each year. Despite the importance of attending colposcopy for the detection and assessment of cervical cell abnormalities, data shows that some Victorian women and people with a cervix do not attend their appointments, resulting in delayed treatment, poorer health outcomes, increased waitlist times and unnecessary healthcare expenditure. Previous qualitative research identified barriers to appointment attendance including patient stress, anxiety and information needs and suboptimal healthcare professional communication. This project therefore aimed to develop a suite of resources for patients and healthcare professionals to address the informational and emotional needs of patients who receive an abnormal Cervical Screening Test (CST) result and are referred for colposcopy

Methods

Following a desktop resource review, resources were drafted, clinically reviewed and translated into plain language. Six patients who had faced colposcopy attendance barriers reviewed the drafts and existing resources for appropriateness and acceptability before final clinical review and production.

Results

Three fact sheets, an animation, three case studies, and a video were developed to explain CST results and prepare patients for colposcopy. Resources were promoted to patients and healthcare professionals, highlighting Cancer Council's nurse helpline as a contact for more information and support. Selected resources were integrated into patient communications at a large metropolitan colposcopy clinic, including SMS appointment reminders. A comprehensive evaluation assessing the impact on information and support needs will take place approximately six months after implementation.

Lessons

In depth understanding of patients with lived experience was critical to identifying unique information and emotional needs of patients who receive abnormal CST results or are referred for colposcopy. Ongoing promotion, health professional education, integration into other health services, evaluation, and tailoring for priority populations will be critical to implementation to ensure uptake, engagement, and ultimately improved patient colposcopy experience and attendance rates.

Factors associated with private or public breast cancer screening attendance in Queensland

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1C - New Evidence to Inform Existing Programs 1, Wynyard & St. James, March 4, 2025, 1:30 PM - 3:00

PM

Introduction: There is limited evidence about the proportion of women who attend private breast screening services outside the Australian national program (BreastScreen) and the factors associated with private or public screening attendance. This study aimed to estimate participation in private screening, and to identify factors associated with the screening setting.

Methods: This was a retrospective cross-sectional study using an online survey. Survey respondents consisted of 999 females from Queensland aged 40-74. Screening-specific and socio-demographic factors were collected. Proportions of survey respondents participating in public or private screening were estimated and Clopper-Pearson 95% confidence intervals (95% CIs) were computed.

Multivariable logistic regression was used to identify factors associated with screening setting (public vs private) and screening recency (<2 years vs ≥2 years). Multiple imputation was also performed to impute missing values for model covariates.

Results: Participation estimates were 53.2% (95% CI: 50.0%-56.3%) and 10.9% (95% CI: 9.0%-13.0%) for national screening program and private screening, respectively. In the screening setting model (759 women who had breast screening experience), participation in private screening was significantly associated with longer time since last screening (>4 vs <2 years, odds ratio (OR)=7.3, 95%CI: 4.1-12.9, p<0.001), having symptoms (OR=9.5, 95% CI: 5.8-15.5, p<0.001), younger age (50-74 vs 40-49 years, OR=0.6, 95% CI: 0.3-0.9, p=0.018) and having children <18 years in household (OR=2.4, 95% CI: 1.5-3.9, p<0.001). In the screening recency model, only screening setting was statistically significant and participation in private screening was associated with screening recency ≥2 years (OR=4.0, 95% CI: 2.8-5.7, P<0.001).

Conclusions: Around 1 in 9 women screen outside of BreastScreen Queensland, hence uptake of breast screening in the population is higher than the program's participation rate. Clinical and socio-demographic factors associated with participation in private screening were identified, providing knowledge relevant to the program's endeavours to improve screening participation.

The Australian Pancreatic High-Risk ScrEening (APRISE) Study

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3C - Novel & Emerging Types of Screening, Wynyard & St. James, March 5, 2025, 1:30 PM - 3:00 PM

Pancreatic cancer is the third leading cause of cancer-related death in Australia, primarily due to late-stage diagnosis. Early detection through targeted screening offers the potential to identify pancreatic cancer or precursor lesions at a stage where curative surgical intervention remains possible.

However, surveillance for pancreatic cancer in the general population is not practical due to its relatively low incidence and the lack of affordable and reliable surveillance tools. Surveillance is therefore recommended to high risk populations.

The APRISE (Australian Pancreatic High-Risk ScrEening) Study is a national initiative that will evaluate the feasibility of screening individuals at increased risk of pancreatic cancer due to pathogenic germline mutations or a strong familial predisposition. The study aims to recruit 1,000 participants over 5 years who meet established international criteria for high-risk status, and provide annual surveillance via endoscopic ultrasound (EUS) and/or magnetic resonance imaging (MRI).

The primary objective of this study is to determine the practicality of implementing a structured screening protocol for high-risk individuals in Australia. Secondary objectives include evaluating the prevalence and stage of pancreatic cancer and precursor lesions at diagnosis, identifying pancreatic cancer risk factors, and assessing the psychological impact of screening, particularly in relation to quality of life and cancer-related anxiety.

Data from APRISE will contribute to international research efforts, including the PRECEDE consortium, to further global understanding of pancreatic cancer screening. Linked data from the Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Scheme (PBS) will also be utilised to assess the cost-effectiveness and clinical outcomes of long-term pancreatic cancer surveillance in Australia. These data will be used to inform the development of future screening protocols that aim to optimise early detection while minimising unnecessary interventions and associated risks, which will contribute to better patient outcomes

Navigating Stigma: Lessons on Co-Creating Liver Cancer Screening Resources for Priority Communities

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2B - Indigenous & Priority Populations, Town Hall, March 5, 2025, 11:00 AM - 12:30 PM

Hepatitis B (HBV) and liver cancer are highly stigmatized topics among First Nations and culturally diverse communities. To encourage adherence to regular monitoring, treatment and liver cancer surveillance for patients living with hepatitis B, resources must respect cultural protocols, use plain language, and maintain clinical accuracy. Deep collaboration with affected communities is critical for resources to be effective. However, stigma poses a challenge in recruiting participants for co-developing such resources.

Two successful examples of co-developed resources are the:

- Menzies School of Health Research's "Hep B Story" App which was co-created with First Nations people
- Cancer Council Victoria's "Preventing Hepatitis B-related Liver Cancer" flipchart which was developed in collaboration with multicultural communities and funded by Victoria Department of Health.

Key lessons learnt from the co-development process include:

- Use participatory action research principles, throughout each iterative cycle to ensure all voices, especially those marginalized or underrepresented, are heard and valued.
- Collaborate with trusted grassroots organisations to help with recruitment of participants.
- Ensure confidentiality and anonymity of interviewees.
- Provide ample time for multiple feedback loops to allow for diverse perspectives in the resource design.
- Create a physically and emotionally safe and confidential environment for participants to reflect on their experience; for some participants this may be the first time they are sharing this story.
- Ensure all interviewers are trained in cultural safety to reduce stigma.
- Recognise the unique cultural norms of different First Nations and culturally diverse communities and consult with community leaders on how interviews should be conducted (e.g. separate interviews for men versus women, ensuring certain family members are not in the same room; determining whether one-on-one or group interviews were more appropriate)

These strategies offer valuable guidance for developing culturally sensitive screening resources, particularly for other stigmatized conditions, such as liver or cervical cancer.

First Nations researchers, stakeholders and community members were involved in all aspects and stages of research planning, data collection, analysis and dissemination of results. This work has been endorsed by the Menzies Infectious Diseases Indigenous Reference group.

Targeted text message recall system to increase uptake of Heart Health Checks

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1B - Cardiovascular & Chronic Disease Screening, Town Hall, March 4, 2025, 1:30 PM - 3:00 PM

Intro: Australian guidelines recommend formal cardiovascular disease (CVD) risk screening for adults aged 45-74 years, but uptake in general practice is suboptimal. The aim of this study was to investigate effectiveness of a text mediated recall program, with or without nudge reminder messages, on the uptake of Heart Health Checks (HHCs).

Methods: Medical software identified patients eligible for a HHC. Practices were randomised to: 1) standard SMS: 1 SMS inviting patients to see their GP for a HHC, 2) nudge reminder: standard SMS + nudge reminder two weeks later, or 3) control: no SMS. Aggregate, deidentified, practice-level data was extracted at baseline and 3-months.

Results: A total of 206 general practices participated with 70,679 recall text messages and 34,406 nudge reminder messages sent. HHC uptake was 11 and 16 times higher in the standard and nudge arms (respectively) compared to control (0.4 vs 4.5 vs 6.3 per 100 patients, $p < 0.001$). Updated cholesterol values were 31.6 and 60.2% higher in standard and nudge arms (respectively) compared to control (13.7 vs 16.8 vs 17.4 per 100 patients, $p = 0.02$). Updated blood pressure was 23.0 and 26.8% higher in the standard and nudge arms (respectively) compared to control (13.7 vs 16.8 vs 17.4 per 100 participants). New medication prescription (lipid or blood pressure-lowering) was 36.8% higher in the nudge arm compared to control (32.1 vs 43.9 patients per practice, $p = 0.03$).

Conclusions: This study demonstrates the effectiveness of text mediated recall of eligible patients to increase uptake of cardiovascular risk screening in Australian general practice.

Trial registration: ACTRN12622000140752

Getting Australia to a National Liver Screening Program: what does it take?

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¹Cancer Council Victoria, East Melbourne, Australia

2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

Background: Liver cancer is one of the leading causes of cancer-related deaths worldwide, with low survival rates (22%) despite it being preventable. Despite the high burden, a national liver cancer screening program remains underdeveloped in many countries, including Australia. Countries like Japan have achieved better liver cancer survival rates (44%) through targeted screening, which could be a model for Australia.

The launch of Australia's first targeted national screening program for lung cancer provides insights on what is required to progress advocating for a similar screening program but for liver cancer.

Potential learnings:

1. Consensus on Risk Stratification: There is opportunity to further research and gain consensus on the most effective screening criteria for different at-risk populations, including the integration of comorbid conditions (e.g., metabolic syndrome), and social determinants of health. The sensitivity and specificity of existing screening modalities, such as ultrasound and alpha-fetoprotein (AFP), can be further researched, along with more research to validate emerging biomarkers and imaging technologies in a real-world national program setting.

2. Cost-Effectiveness and Resource Allocation: Current cost-effectiveness models for liver cancer screening may not sufficiently account for the rapidly rising incidence of Metabolic Associated Fatty Liver Disease (MAFLD) related liver cancer and the availability of new treatments, complicating resource allocation decisions. There is also a perception that liver cancer does not have the same population wide impacts as other cancers. Further research can provide a truer estimate of the impact of liver cancer and cost-effectiveness of a liver screening program.

3. Cohesive advocacy and framing: Due to multiple risk factors impacting on liver cancer, there is opportunity for stakeholders to work together to further knowledge on advocacy and message framing that will cohesively communicate the impacts of liver cancer to policy makers and the Australian population.

Conclusion: The advent of the National Lung Cancer Screening Program provides liver cancer advocates with insights on additional knowledge which could aid the proposal for a national liver cancer screening program. Multidisciplinary collaboration between public health experts, clinicians, and policymakers is essential to develop a systematic approach towards addressing any knowledge gaps.

Public dental clinics: An opportunity to screen for hypertension

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1B - Cardiovascular & Chronic Disease Screening, Town Hall, March 4, 2025, 1:30 PM - 3:00 PM

Background: Hypertension affects approximately 1 in 3 Australian adults however is often undetected or poorly controlled. Poor oral hygiene and oral disease have been shown to be associated with an increased risk of hypertension. Therefore, public dental clinics offer a unique opportunity to screen for hypertension and provide primary prevention.

Aims: to characterise the oral disease burden and determine the prevalence, awareness, treatment and control of hypertension in a population attending a large public dental clinic.

Method: Participants (n=302) were recruited between November 2022 and May 2023 from the Westmead Centre for Oral Health, which is a public dental clinic located in Western Sydney. Adults \geq 18 years of age, able to read/understand English were included in the study. Blood pressure was measured with an automatic digital device (Omron HEM-907[®]) with the participant in the seated position after resting in the dental chair for 5 minutes. Oral health and medical history details were obtained using a researcher administered survey.

Results: A total of 302 participants, mean age 59.9 ± 9 years, 181 (60.7%) female were recruited. Over a third (33.1%) had significant tooth loss (< 20 teeth), nearly half (49.5%) were identified as needing treatment for gum disease and less than half (47.5%) brushed their teeth twice or more time per day.

The prevalence of hypertension was 52.0% (95% CI: 46.2%, 57.7%). Of those with hypertension (n=157), 82.7% were aware of their diagnosis, 76.9% were receiving anti-hypertensive medication (treated), and 56.5% of those on medication had their blood pressure controlled.

Conclusion: Oral health practitioners could play an important role in primary care by screening patients with a high burden of oral disease for undiagnosed or poorly controlled hypertension and by providing preventive advice targeting common risk factors shared by oral disease and hypertension.

Towards Equity: Improving cervical screening uptake in Arabic, Cantonese, and Mandarin Communities

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3B - Cultural & Linguistic Diversity, Town Hall, March 5, 2025, 1:30 PM - 3:00 PM

Background and aim

Many culturally and linguistically diverse people face significant barriers to cervical screening and are a priority population in Australia's National Cervical Cancer Elimination Strategy. However, this group is not homogenous, and in-depth understanding of barriers specific to individual communities is seldom considered when developing interventions and communications. This project aimed to understand the knowledge, attitudes, barriers, and enablers to cervical screening and self-collection amongst Mandarin, Cantonese and Arabic speaking communities.

Methods

Nine semi-structured, in-language focus groups were conducted across three languages: Arabic (n=21), Cantonese (n=23), and Mandarin (n=23). Focus groups were a mix of online and in-person and stratified across ages. All participants were under screened or never screened.

Results: Findings demonstrated low awareness and misconceptions about cervical cancer causation, the National Cervical Screening Program and its renewal, and self-collection across all groups. Mandarin speakers valued preventative health checks and demonstrated increased awareness and knowledge. Significant stigma surrounded cervical cancer, with Arabic women expressing more fatalistic beliefs. Common barriers included perceptions of pain, embarrassment, and the misconception that you only needed to test if you had cervical cancer symptoms. Barriers specific to self-collection included low awareness, confusion over a vaginal sample, perceived poor test accuracy, and low self-efficacy to perform the test. Enabling factors for cervical screening included trusted relationships with female doctors and test reminders. Most people preferred the option to clinician collect than self-collect, particularly older women. However, there was support for self-collection among younger and middle-aged women if barriers and knowledge gaps were addressed.

Lessons

Tailored communications and community engagement are crucial to overcoming barriers in these populations. Messaging should promote choice and build understanding and confidence in self-collection, helping to correct misconceptions and barriers. These insights will help make community engagement initiatives more relevant, meaningful and effective, improving equity in cervical cancer outcomes.

Screening for Liver Cancer in the NT – The “Liver One-Stop Shop”

Dr Paula Binks¹, Dr Anna Holwell², Mrs Miriam Heath¹, Dr Susanne Schmitt², Ms Sarah Bukulatjpi^{1,3}, Mr George Gurruwiwi¹, Ms Jaclyn Tate-Baker², Ms Anngie Everitt^{1,2}, Professor Robert Batey², Ms Khim Tan², Dr Catherine Marshall^{1,2}, Dr Kirsty Campbell², Dr Melissa Carroll², Dr Kelly Hosking^{1,2}, Professor Joshua Davis^{1,4}, A/Professor Jane Davies^{1,2}

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3C - Novel & Emerging Types of Screening, Wynyard & St. James, March 5, 2025, 1:30 PM - 3:00 PM

Background:

Aboriginal and Torres Strait Islander people in the Northern Territory (NT) face disproportionately high rates of hepatocellular carcinoma (HCC), largely due to chronic hepatitis B (CHB) infection. HCC rates among this population are six times higher than non-Indigenous Australians, with significantly worse outcomes due to advanced-stage diagnoses. Early detection of HCC through biannual screening with ultrasound and AFP blood tests is crucial to improving outcomes. The “liver one-stop shop,” introduced by the Northern Territory (NT) Viral Hepatitis Service in 2010, seeks to address this disparity by delivering comprehensive CHB care, focusing on early HCC detection, directly to Aboriginal communities in remote regions of the NT.

Aim:

This study evaluates the impact of the “liver one-stop shop” model on the early detection of HCC in remote NT communities from 2006 to 2019.

Methods:

A retrospective cohort study was conducted, drawing on data from the NT Cancer Registry, clinical records, and hospital databases. HCC incidence rates were calculated and analysed by geographical location, ethnicity, and clinical characteristics, while survival rates were compared across three time periods: pre-implementation (2006-2009), development (2010-2014), and post-implementation (2015-2019) of the “one-stop shop”.

Results:

The proportion of HCC cases diagnosed through screening increased from 41% to 68% among Aboriginal and Torres Strait Islander people. Tumour size at diagnosis decreased, and more patients were eligible for curative treatments. Despite a rising incidence of HCC, the survival rate improved over time, with significant benefits for those living in remote areas.

Conclusion:

The “liver one-stop shop,” has significantly improved early HCC detection. Consequently, more patients were eligible for curative treatments, leading to improved survival rates. Expanding this accessible, community-based liver cancer screening model to more remote areas could further enhance HCC outcomes and reduce mortality for Aboriginal and Torres Strait Islander populations.

Aboriginal researchers, stakeholders and community members were involved in all aspects and stages of research planning, data collection and analysis of results. This work has been endorsed by the Menzies Infectious Diseases Indigenous Reference Group.

People first in lung cancer screening: international learnings from a Churchill Fellowship

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1A - Lung Cancer Screening, Central, March 4, 2025, 1:30 PM - 3:00 PM

Introduction: Lung cancer impacts millions of people worldwide as the most common cause of cancer death. Lung cancer screening (LCS) is a key public health reform that can significantly impact health outcomes. There are learnings from international LCS randomised controlled trials, implementation studies and programs that could be rapidly translated into the Australian national program commencing from July 2025. The Churchill Fellowship aimed to explore strategies that enable people from priority populations to screen for lung cancer.

Methods: I visited 18 organisations across six countries and met with 91 multidisciplinary experts. Forty experts took part in qualitative interviews resulting in 21 detailed transcripts (10 individual, 11 team-based). A detailed report was written to share with Australian stakeholders. Ethics approval was granted by University of Melbourne.

Results: Findings specific to the 'people first' will be presented, grouped in four themes. First, promotion and awareness strategies should use positive message-framing about LCS. Innovations such as participant testimonials and clinical champions are under-utilised. Second, community engagement requires building partnerships with LCS priority populations from program inception. Evidence suggests that people are willing to participate in LCS if engagement is 'at their level'. Co-design helps to build engagement and overcome erroneous assumptions about lack of motivation to engage in LCS. Third, recruitment via mailed out invitations and reminders are costly and inefficient. Text messaging and precision strategies should be routinely implemented in LCS programs. Finally, models of care have significant advantages in building community trust. Mobile screening can address stigma through delivery outside traditional healthcare settings. Navigator models of care are effective in engaging priority populations. Navigators can conduct eligibility checks, shared decision-making consultations and offer brief smoking cessation advice.

Conclusion: International best practice examples that put people first increase engagement in LCS and could be adapted for the Australian national program.

SIMPLY-B Pilot Study: Assessing hepatitis B treatment uptake in primary care clinics

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Poster Displays, Pre-Function Area, March 4, 2025, 12:40 PM - 1:30 PM

Background: To increase hepatitis B management in primary care, we developed SIMPLY B, a novel online hepatitis B case identification and decision support tool that provides GPs with real-time management plans and automated specialist support allowing rapid access to Fibroscan. We evaluated the feasibility, acceptability and effectiveness of SIMPLY B to increase hepatitis B management in primary care.

Materials and Methods:

This pilot intervention study was conducted in a primary care clinic in Melbourne from 21 April 2023 to 30 July 2024. GPs were encouraged to use SIMPLY B to identify and manage new adult patients with hepatitis B. Demographic and clinical data were extracted from the SIMPLY B database and described N (%). Semi-structured interviews evaluating the acceptability of SIMPLY B were conducted with GPs.

Results: During the study period, nine patients with newly diagnosed hepatitis B were identified at the primary care clinic serving high prevalence populations: . All all of whom were enrolled in SIMPLY B; five were female and ages ranged 27-59 years. All nine received SIMPLY B-guided hepatitis B management by their GP in primary care: one patient was eligible for and received hepatitis B treatment, 3 were enrolled in liver cancer surveillance and all continued monitoring in primary care without specialist referral.

GPs reported SIMPLY B was useful to guide hepatitis B management and easy to use. They were satisfied with the clarity of SIMPLY B management plans provided at the bedside, rapid Fibroscan appointments and specialist support. GPs stated they previously referred patients for specialist care. Patients expressed no objections and stated that SIMPLY B simplified care.

Barriers to GPs using Simply B were logistical (eg: understaffing issues), while some GPs disliked computer programs.

Conclusion: The SIMPLY B clinical decision support tool was feasible, acceptable and increased hepatitis B management by GPs in primary care.

Routine liver cancer screening for metabolic-associated fatty liver disease: benefits and cost-effectiveness

Dr Joachim Worthington¹, Dr Emily He¹, Anna Kelly¹, Amanda McAtamney², A/Prof Eleonora Feletto¹

¹University of Sydney, Sydney, Australia, ²Cancer Council Australia, ,

3C - Novel & Emerging Types of Screening, Wynyard & St. James, March 5, 2025, 1:30 PM - 3:00 PM

In 2023, Cancer Council Australia and The Daffodil Centre launched the Roadmap to Liver Cancer Control in Australia, identifying priority actions to improve liver cancer outcomes over the next decade. One priority is the expansion of screening to more people at elevated risk of liver disease and cancer. Investment in screening needs to be justified by assessing the feasibility and cost-effectiveness, balancing the short-term costs and patient burdens against long-term health benefits. Currently, guidelines recommend 6-monthly ultrasound surveillance to detect liver cancer in people with cirrhosis, and some people with hepatitis. However, cheaper biomarker screening presents an opportunity to expand screening eligibility to Australians with metabolic associated fatty liver disease (MAFLD, alternatively classified as NAFLD/MASLD). Currently biomarker screening is conducted at clinician discretion, with those found to be at high-risk recommended to ultrasound or other screening.

To assess the potential benefits and cost-effectiveness of screening for people with pre-cirrhotic MAFLD, we used Policy1-Liver, a predictive model of liver disease and cancer. We estimated the health and economic impact of using FIB-4, either as routine screening for progression to cirrhosis or once-off screening for the development of steatohepatitis (indicating elevated risk).

Based on the number of MAFLD-related liver cancers, we estimated that by 2045, up to 150 MAFLD-related HCC deaths in Australia could be prevented annually through routine FIB-4 screening.

However, routine screening alone would not be cost-effective (cost-effectiveness ratio: \$58,000 per quality-adjusted life-year saved), as many people with early stage MAFLD are unlikely to experience any health benefits. However, initial screening for the steatohepatitis would improve the cost-effectiveness significantly (cost-effectiveness ratio: \$15,700 per quality-adjusted life-year saved).

As liver cancer screening becomes more feasible in Australia, identifying the optimal technologies and screening frequencies will be crucial to developing a sustainable program that balances patient harms, costs, and health benefits while scaling up to ensure all at-risk Australians receive appropriate screening.

Cancer Screening Knowledge, Awareness and Practices among LGBTIQ+ Western Australians

Associate Professor Jonathan Hallett¹, Associate Professor Justine Leavy¹, Dr Nang Phoo¹, Associate Professor Gemma Crawford¹, Mr Lekey Khandu¹, Ms Renae Hayward², Ms Sonya Schultz³, Ms Kathleen O'Connor⁴

¹Curtin School of Population Health, Perth, Australia, ²WA Cervical Cancer Prevention Program, Women and Newborn Health Service, North Metropolitan Health Service, Perth, Australia,

³BreastScreen WA, Women and Newborn Health Service, North Metropolitan Health Service, Perth, Australia, ⁴Cancer Network WA, North Metropolitan Health Service, Perth, Australia

Poster Displays, Pre-Function Area, March 4, 2025, 12:40 PM - 1:30 PM

Cancer is a significant health concern for LGBTIQASB+ Australians, with an estimated 7,500 new diagnoses and 23,000 survivors annually. The WA Cancer Plan 2020-25 aims to reduce cancer's burden and acknowledges the unique needs of those in the LGBTIQASB+ community. Ongoing disparities in cancer care for LGBTIQASB+ individuals lead to exclusion, lack of support, and increased distress. Discrimination in healthcare settings and a lack of LGBTIQASB+ competence among clinicians hinder cancer screening uptake, especially among trans people. There is a notable absence of LGBTIQASB+-specific information in Australian cancer support resources, with recent initiatives beginning to address this gap. The Screening Saves Lives (SSL) campaign, initiated in 2021 by the Cancer Network WA, aimed to enhance the participation of the WA LGBTIQ+ community in bowel, breast, and cervical cancer screenings. CERIPH was commissioned to assess the effectiveness of the Screening Saves Lives campaign through a cross-sectional online survey with the WA LGBTIQASB+ community. The survey measured campaign awareness and behaviour change prompted by the campaign as well as knowledge of cancer and screening behaviours. Participant demographics (n=433) revealed an overrepresentation of women, particularly in the 30 to 39 age bracket, the majority of whom were Australian-born, English-speaking and tertiary educated. This outcome suggests a potential area for future evaluation efforts to ensure broader demographic segmentation, in particular older adults and people from culturally and linguistically diverse backgrounds. Interestingly, 6.9% of respondents identified as Aboriginal, Torres Strait Islander and/or both. Behavioural intentions following campaign exposure were promising, with 70% of respondents considering engaging in screening activities. Barriers to screening such as fear, discomfort, and embarrassment were identified across cervical, breast, and bowel cancer screenings. Gaps in knowledge about screening protocols, particularly self-collection options for cervical screening were also evident. In addition, gaps in knowledge were identified in relation to modifiable risk factors. Opportunities exist for research and evaluation to interrogate these factors. Future efforts should demystify screening processes, address emotional and psychological barriers, and reinforce the critical role of regular screening in early detection and the facilitation of timely treatment interventions.

BARRIERS AND FACILITATORS FOR INCREASING CERVICAL CANCER SCREENING IN TUVALU

Ms Shannon Rasmussen¹, Ms Gianna Robbers¹, Ms Rachel Sandford¹, Ms Anne Stuart¹

¹Family Planning Australia, Newington, Sydney, Australia

3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Introduction:

Cervical cancer is the fourth most common cancer in women with 90% of all related cancer deaths occurring in low-and-middle-income countries. Cervical cancer is preventable if it is detected and managed effectively. Despite this, a national cervical screening programme is not widely available across the Pacific. However, the Global Strategy for cervical cancer elimination was adopted in 2020 and set targets to be met by countries by 2030. Family Planning Australia has partnered with the Tuvalu Family Health Association, the Ministry of Health and Cepheid to implement a screen and treat, point of care model using a GeneXpert machine and treatment with thermal ablation.

Methods:

The evaluation of the cervical screening and treatment programme was first conducted in October 2023 and in June 2024, which included an analysis of screening data and nine stakeholder interviews. The evaluation intended to identify facilitators and barriers for implementation and upscale of the programme.

Results:

Tuvalu reached a screening participation rate of 86% of eligible women by June 2024. Therefore, Tuvalu is the first country in the Pacific to achieve the WHO screening target of 70%. Treatment rates were lower at 58% due to women's high refusal rates. Identified programme barriers included delays in equipment deliveries leading to swabs not being tested for prolonged periods, women's concerns regarding having to abstain from sex with their partner after treatment and limited outreach due to the remoteness of some islands. Identified facilitators for screening uptake included having the option for women to self-collect HPV DNA samples and conducting community outreach to educate people on cervical screening and treatment.

Conclusion:

Self-collected HPV DNA testing is an effective and acceptable method of screening. However, more outreach and community education is needed to improve treatment rates. Moreover, strategies to address equipment delays need to be considered.

Can history inform evidence-based approaches to innovation in cancer early detection?

Mr PAUL Grogan¹

¹The Daffodil Centre/cancer Council Nsw, Sydney, Australia

1C - New Evidence to Inform Existing Programs 1, Wynyard & St. James, March 4, 2025, 1:30 PM - 3:00 PM

Daffodil Centre projections show that unless there are changes in policy and practice, 1.45 million Australians will die from cancer between 2020 and 2044 – almost all of them diagnosed at late stage. Age-standardised mortality rates will fall by over 20%, much of the benefit from prevention and earlier detection, as shown in reduced incidence rates (e.g., smoking-caused cancers, melanoma) and patterns in stage at diagnosis in cancers screened in organised and/or ad hoc approaches (bowel, breast, cervical and lung cancers). For many cancers, however, trends in stage at diagnosis are set to remain stable (e.g., prostate, melanoma) while others vary widely (e.g., ovarian, liver, pancreatic) for reasons not fully understood.

Roadmaps for risk-adjusted screening and/or early detection for breast, liver and pancreatic cancers and melanoma are published or in development. Guidelines for prostate cancer detection are being updated. Interest in risk-adjusted screening (stratified by subpopulation or tailored for individuals) continues to grow, including among advocacy and commercial entities – at the risk of outpacing evidence informing optimal policy and practice. Australia's Population Screening Framework is also under review.

This presentation will highlight the drivers for establishing Australia's national cancer screening programs and recent developments in early detection of other high-burden cancers and pose the question: can we work across sectors to learn from the past and ensure evidence and equity underpin advances in organised early detection of cancer that deliver significant public health benefits?

Data source (pre-publication data also summarised):

Luo Q, O'Connell DL, Yu XQ, Kahn C, Caruana M, Pesola F, Sasieni P, Grogan PB, Aranda S, Cabasag CJ, Soerjomataram I, Steinberg J, Canfell K. Cancer incidence and mortality in Australia from 2020 to 2044 and an exploratory analysis of the potential effect of treatment delays during the COVID-19 pandemic: a statistical modelling study. *Lancet Public Health*. 2022

Gestational diabetes mellitus screenings display seasonal variation in Perth pregnancies

Ms Gemma Burro¹

¹Edith Cowan University, Joondalup, Australia

2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

Background: Gestational Diabetes Mellitus (GDM) diagnoses has been shown in SA, NSW and QLD to display clear seasonal variation. With summer screening dates producing more diagnoses per capita, and winter less diagnoses coupled with more adverse birth outcomes. Current diagnostic criteria is uniform and may contribute to false positive errors in summer and false negative errors in winter.

Objectives: We aim to explore the effect of seasonal variation on blood glucose levels (BGL) among a cohort of pregnant women at a tertiary hospital in Perth, Western Australia. We hypothesize that oral glucose tolerance tests (OGTT) performed in winter will be positively associated with fasting BGL and insulin requirements, and negatively associated with post-load BGL.

Design: This retrospective cohort study analysed 221 medical records between 2022 – 2024. One-way analysis of variance (ANOVA) tested for mean differences in fasting, 1hr and 2hr BGL of OGTT screenings across seasons. Multiple linear regression assessed the impact of demographic factors on significant differences at 1hr and 2hrs. Kruskal-Wallis ANOVA was used to test for rank differences in treatment of GDM across seasons.

Results Winter OGTT screening is associated with significantly lower mean BGL at 1hr (7.53 ± 2.21 , $p < 0.001$) and 2hr (6.632 ± 2.803 , $p = 0.03$) with medium to large effect size (10.8%, 4.8%). After controlling for BMI, ethnicity and parity; winter screening predicts a 4.9% lower BGL at 2hrs, considered to be significant ($\alpha < 0.05$, $p = 0.029$) with medium effect size ($f^2 = 0.075$).

Conclusions: A significant decrease in mean post load BGL in Winter should be considered when interpreting OGTT results for the diagnosis of GDM. Deeper understanding of mechanisms and outcomes of this phenomenon is crucial for healthcare providers to refine screening strategies and treatment protocols - to optimise maternal and neonatal outcomes and identify efficiencies for public health and economic resources.

Burden of lifestyle disease identified through targeted screening of PNG DF members

Dr Krond Mond¹, MAJOR Therese Naig¹, MAJOR Grace GOINA¹, CAPTAIN Glenyss Rimani¹, Sr Karen Romah¹, OC Shannon Tarai¹, LTCOL Peter Kaminie¹

¹Papua New Guinea Defence Force, Port Moresby, Papua New Guinea

1B - Cardiovascular & Chronic Disease Screening, Town Hall, March 4, 2025, 1:30 PM - 3:00 PM

Introduction

The Papua New Guinean Defence Force (PNGDF) has recorded an increased number of death in serving personnel due to lifestyle diseases over the period 2020 to 2023. Cardiovascular diseases (CVDs) and diabetes mellitus (DM) have been the leading cause but data on prevalence and associated risk factors is limited.

The PNG Chief of Defence Force called for a basic compulsory medical board (CMB) with aim to assess prevalence of CVD and DM. This would reveal the health status and operational readiness of the PNGDF and provide a baseline for future longitudinal surveys to better monitor the burden of CVD, DM and associated risk factors that affect this population and the general population.

Method

Screening was conducted in 10 military establishments across PNG, including Port Moresby, Lae, Manus Island and Wewak. A total of 2,343 personnel were assessed between June 2023 and September 2024. Investigations included blood pressure, body mass index, random blood sugar level, cholesterol, and electrocardiogram.

Results

Screening revealed more than 50% of PNGDF were classed as overweight or obese with 35% at risk of developing CVD. 8% were identified as new cases of hypertension (systolic >140mmHg, diastolic > 90mmHg) and 33% were pre-hypertensive (systolic 130-139.9mmHg and diastolic 80-89.9mmHg). 2% were identified new cases of diabetes mellitus type2 (RBSL >11.1mmol/L and FBSL >7.4mmol/L) and 7% pre-diabetic (RBSL 7.4 -11mmol/L).

Discussion

The CMB has provided evidence to inform health policy relevant to disease prevention and management in the PNGDF and also provide a framework for national disease surveillance. Some of the ongoing challenges include how best to continue targeted screening, design management strategies for a diverse population, and educating PNGDF family and extended community. Management of pre-CVD and pre-DM identified members have become a priority in order to prevent escalating burden of disease in the next few years.

The new National Lung Cancer Screening Program commencing July 2025

Ms Jessica Pratt¹

¹Department of Health and Aged Care, Canberra, Australia

1A - Lung Cancer Screening, Central, March 4, 2025, 1:30 PM - 3:00 PM

The presentation will outline the design and implementation of the National Lung Cancer Screening Program (NLCSP), which is commencing in July 2025.

The Department of Health and Aged Care has partnered with the National Aboriginal Community Controlled Health Organisation (NACCHO) and Cancer Australia to implement the program. The implementation partners are focussed on ensuring the program is equitable, accessible and culturally safe for First Nations people and other priority groups who are also disproportionately impacted by lung cancer.

Lung cancer is the most common cause of cancer-related death in Australia. The NLCSP will detect lung cancer earlier to reduce mortality, hundreds of lives will be saved through the program each year.

In line with Medical Services Advisory Committee (MSAC) advice, the program will use low-dose CT scans to look for lung cancer in high-risk asymptomatic participants aged between 50 to 70 years old, with a 30 pack-year cigarette smoking history, or have quit in the last 10 years.

The implementation partners, with the guidance of the jurisdictions and clinical experts, are progressing the program design and planning under the key themes of: partnerships with priority populations, equity of access, clinical resources, MBS items, expanding the National Cancer Screening Register, legislative requirements and a national communications campaign.

This work is supported by numerous clinical, consumer, research peak bodies and other lung health experts. Including: Lung Foundation Australia, the Daffodil Centre, Heart of Australia, the University of Melbourne, and the Royal Australian and New Zealand College of Radiologists.

Health professionals' perspectives on designing and implementing innovative models of HPV self-collection

Ms Claire Bavor¹, Dr Tessa Saunders¹, A/Prof Megan Smith², Professor Julia Brotherton¹, A/Prof Angela Kelly-Hanku³, Prof Deborah Bateson², Dr Claire Nightingale¹

¹University Of Melbourne, Melbourne, Australia, ²The Daffodil Centre, University of Sydney, a joint venture with Cancer Council NSW and the University of Sydney, Sydney, Australia, ³Kirby Institute, University of New South Wales Sydney, Kensington, Australia

3B - Cultural & Linguistic Diversity, Town Hall, March 5, 2025, 1:30 PM - 3:00 PM

Background/objective:

Self-collection provides flexibility in how and potentially by whom cervical screening can be offered. This provides opportunities to develop innovative screening models, including those beyond a clinic, that address existing participation barriers. We explored the acceptability of innovative screening models for improving equity in the Australian National Cervical Screening Program (NCSP) with health professionals and how they could be designed and implemented to maintain screening quality and safety.

Methods:

Semi-structured interviews were conducted between June and October 2023 with 132 health professionals in clinical and non-roles at medical, pathology and/or community services that provide or could support access to cervical screening. Data was analysed using template analysis.

Results:

Most participants found tailoring innovative screening models to the needs of different priority population groups acceptable for promoting equitable access to screening. For example, community outreach, home in-reach and community events were appropriate settings for offering self-collection to some population groups, but less so for others. Maintaining screening quality and safety outside the clinical setting was a priority for many participants, who emphasised the importance of a cervical screening pathway with clinical oversight and linkage to follow-up care. Study participants thought the NCSP could support implementation through sustainable funding models that expand the scope of practice of nurses/midwives in cervical screening, and professional development for non-clinical providers such as bicultural and peer workers in promoting screening participation.

Outcomes:

Our findings highlight how the flexibility that self-collection offers could be used to improve access to acceptable and appropriate cervical screening services, alongside important considerations for their implementation. To minimise the risk of harm and deliver appropriate cervical screening, clinical oversight will need to remain embedded in the cervical screening pathway. Working with health professionals and community partners to guide the development of innovative models will help promote equity in Australia's elimination goals.

Explaining cessation of BreastScreen invitations increases women's informed decision-making beyond 74 years

Dr Jenna Smith¹, Dr Erin Cvejic², Professor Nehmat Houssami³, Dr Mara Schonberg⁷, Dr Wendy Vincent⁵, Professor Vasi Naganathan⁴, Dr Rachael Dodd³, Dr Jesse Jansen⁶, Professor Katharine Wallis⁸, Professor Kirsten McCaffery¹

¹Sydney Health Literacy Lab, Sydney School of Public Health, Faculty of Medicine and Health, The University Of Sydney, Sydney, Australia, ²Sydney School of Public Health, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia, ³The Daffodil Centre, The University of Sydney, a joint venture with the Cancer Council NSW, Sydney, Australia, ⁴Concord Clinical School, The University of Sydney, Sydney, Australia, ⁵BreastScreen NSW, Sydney Local Health District, Sydney, Australia, ⁶School for Public Health and Primary Care, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, Netherlands, ⁷Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, United States of America, ⁸General Practice Clinical Unit, Medical School, The University of Queensland, , Australia

2C - Psychosocial & ELSI, Wynyard & St. James, March 5, 2025, 11:00 AM - 12:30 PM

Background: Women cease to be invited to breast cancer screening through BreastScreen after the age of 74 years. However, many desire continued screening and report limited knowledge of why invitations cease, suspecting ageism, cost, or being at lower risk of breast cancer. We tested the impact of providing older women aged 70-74 years with the rationale for cessation of breast cancer screening invitations on informed choice about screening.

Methods: In a three-arm online randomised controlled trial, participants recruited via Qualtrics (female, 70-74 years, living in Australia, no breast cancer) read a scenario where they received a letter from BreastScreen indicating their mammogram was clear. They were randomised to receive either 1) no additional information as per usual care (control), 2) screening-cessation rationale in printed-text form or 3) screening-cessation rationale in an animation video. The rationale explained that women >74 years are not reminded to screen because with increasing age the chance of experiencing downsides outweighs the chance of benefit. The primary outcome was informed choice (adequate knowledge and screening attitudes aligned with intention).

Results: From March 8th-29th 2023, 376 women were recruited and included in the final analysis. Those who received rationale via printed-text or animation were more likely to make an informed choice (control: 17.9%, text: 32.0%, $p=.010$; animation: 40.5%, $p<.001$). This included more adequate knowledge (control: 23.6%; text: 60.2%; animation: 66.1%), reduced screening intention beyond 74 (control: 82.9%; text: 64.9%; animation: 50.4%) and reduced positive screening attitudes (animation arm only: 41.3%, control: 62.6%) (all $p<.001$).

Conclusions: Providing information to women aged 70-74 years about the rationale for an upper age limit for the national breast screening program improved informed decision-making beyond 74 years. Further research is needed to understand the impact of these interventions in practice and how to support GPs further explain this information to older women.

Preferences for participating in HPV self-collection: National survey of cervical screen-eligible people

Ms Claire Bavor¹, Dr Tessa Saunders¹, A/Prof Megan Smith², Prof Julia Brotherton¹, A/Prof Angela Kelly-Hanku³, Prof Deborah Bateson², Dr Claire Nightingale¹

¹University Of Melbourne, Melbourne, Australia, ²The Daffodil Centre, University of Sydney, a joint venture with Cancer Council NSW and the University of Sydney, Sydney, Australia, ³Kirby Institute, University of New South Wales Sydney, Kensington, Australia

3A - New Evidence to Inform Existing Programs 2, Central, March 5, 2025, 1:30 PM - 3:00 PM

Background/objective:

Globally, self-collection is being increasingly utilised to offer flexible cervical screening options, like mail-out and community outreach. In Australia's National Cervical Screening Program (NCSP), self-collection must be overseen by a healthcare professional. However, there is some flexibility in delivery that can be used to improve equity in the program. We explored the preferences of Australian women and people with a cervix to understand how this flexibility could be optimised within the NCSP.

Methods:

An online survey was conducted with 9778 screen-eligible participants aged 24-74, between December 2023 and April 2024. Responses were analysed by demographic variables and screening history.

Results:

Most preferred way of accessing self-collection: For participants aged 25-49, these were mail-out (53.2%;3693/6939), pharmacy pick-up (10.7%;741/6939) and online/phone order (10.3%;713/6939). For those aged 50-74, they were mail-out (49.2%; 1269/2579), mail-out with the bowel screening kit (11.6%;298/2579), and pharmacy pick-up (8.0%;205/2579). Reasons for these preferences included greater convenience (81.3%; 7793/9591), accessible outside work hours (37.7%;3613/9591), closer to home (23.3%;2236/9591) and less expensive (22.3%;2139/9591).

Most preferred location of sample collection: Collecting the sample at home was preferred by just over half the participants (52.7%;5153/9778), and at the clinic by less than a quarter (24.2%;2368/9778).

Timeliness: When selecting models that could make them more likely to screen on time compared to now, more than three-quarters of participants said mail-out (77.6%;7437/9580), and just over half said pharmacy pick-up (52.0%;4983/9581) or mail-out after a telehealth appointment (50.4%;4856/9635). More than half of participants aged 50-74 said they would be more likely to screen on time if they received the swab with their bowel screening kit (58.2%;1245/2602).

Outcomes:

Screening participants would value greater flexibility in where and how they can access self-collection. However, further research to assess participant preferences for receiving results and navigating follow-up care is needed alongside trials assessing uptake via different models.

Enhancing MAFLD Screening: Outcomes of a Comprehensive Clinical Audit in General Practice

Ms Sally Castle¹, Ms Arya Goswami^{1,9}, Mr Harrison Martin^{1,9}, Associate Professor Gary Kilov⁸, Ms Andrea Deely⁷, Professor Gary Jeffrey^{1,2,3}, Professor Simone Strasser^{1,4,5,6}

¹The Liver Foundation, Camberwell North, Australia, ²University of Western Australia, Crawley, Australia, ³West Australian Liver Transplantation Service at Sir Charles Gairdner Hospital, Nedlands, Australia, ⁴AW Morrow Gastroenterology and Liver Centre, Camperdown, Australia, ⁵Australian National Liver Transplant Unit, Royal Price Alfred Hospital, Camperdown, Australia, ⁶University of Sydney, Camperdown, Australia, ⁷ThinkGP, Chatswood, Australia, ⁸The Launceston Diabetes Clinic, Launceston, Australia, ⁹Macquarie University, Macquarie, Australia

3C - Novel & Emerging Types of Screening, Wynyard & St. James, March 5, 2025, 1:30 PM - 3:00 PM

Background: Metabolic-dysfunction associated fatty liver disease (MAFLD) now impacts one in four Australians and is the leading cause of hepatocellular carcinoma (HCC). This necessitates early detection and proactive management. MAFLD is generally diagnosed and managed in general practice. The Liver Foundation conducted a clinical audit from October 4, 2022, to August 5, 2024, to evaluate general practitioners' (GPs') awareness, knowledge, and practices related to MAFLD. The evaluation aimed to assess GPs' baseline understanding, identify gaps, and enhance their ability to screen and manage at-risk patients effectively.

Aim: The evaluation assessed the impact of education on improving MAFLD screening practices in primary care, focusing on increasing the use of diagnostic tools and enhancing clinical confidence in managing at-risk populations.

Methods: An evaluation was conducted with GPs and GP registrars across Australia before and after completing a MAFLD education programme. Participants completed predisposing (n=1975) and reinforcing (n=1182) activities, assessing changes in awareness, diagnostic confidence, and screening tool use or intention to use, before and after the intervention. Quantitative and qualitative data were analysed to evaluate the programme's effectiveness in improving clinical practice.

Results: The clinical audit demonstrated a 63.2% increase in GP confidence in managing MAFLD. The proportion of GPs who indicated they would use fibrosis risk assessment tools rose from 1.7% to 63.1%, and the implementation of lifestyle interventions improved from 52.7% to 89.4%. Open-text responses highlighted the need for further support in recognising complex risk factors and managing indeterminate fibrosis scores. Post-activity feedback indicated that 95.2% of participants found the content relevant to their practice.

Conclusion: This evaluation confirmed that targeted clinical evaluations, supplemented by accredited education, can significantly enhance GPs' confidence and screening practices for MAFLD. Continued refinement and support for GPs in recognising risk factors and applying guidelines will promote earlier detection, improve patient outcomes, and lessen the community burden of MAFLD.

Skin cancer mortality and survival trends: population subgroup analyses for targeted screening

Ms Sophie Ottaviano¹, Dr Claudia Slimings¹, Bina Gubhaju¹, Professor Anne Cust^{2,3}, Kirsten Morgan¹

¹The Australian Institute of Health and Welfare, , ²The Daffodil Centre, , ³Melanoma Institute Australia, ,

3C - Novel & Emerging Types of Screening, Wynyard & St. James, March 5, 2025, 1:30 PM - 3:00 PM

The Australian Population Based Screening Framework states that for a new organised screening program to be introduced, the condition should be an important health problem that has a recognisable latent or early symptomatic stage. To determine if the criteria are met for the condition, it is important to understand the epidemiology of the disease, which includes the incidence, prevalence and projected trends, and the mortality, morbidity and burden of disease in the target population.

The aim of this project is to compare temporal trends in melanoma and non-melanoma skin cancer (NMSC) mortality in order to identify population groups that have a poorer prognosis following a skin cancer diagnosis. While the Australian Institute of Health and Welfare routinely reports skin cancer mortality and survival rates for sex and different age groups in Australia, information for other population groups is limited.

This presentation will compare temporal trends in skin cancer mortality and survival for a broad range of population groups using linked data from the Australian Bureau of Statistics' Person Level Integrated Data Asset (PLIDA), which combines information on health, education, government payments, income and taxation, employment, and population demographics including the Census. Subgroup analyses will be conducted by First Nations status, country of birth, remoteness, and socioeconomic areas.

The findings from this research will form one of the first steps towards defining the target population for the national targeted skin cancer screening program roadmap and will assist in ensuring equitable access amongst priority populations.

Developing information and workforce materials for the National Lung Cancer Screening Program

Dr Rachael Dodd¹, Ms Katie McFadden¹, Dr Kate Dunlop¹, Dr Dan Luo¹, A/Prof Marianne Weber¹, Mr Mark Brooke², Ms Kelcie Herrmann², Ms Brigitta Rose², Ms Hailey Fisher², Ms Orelia Bello², Ms Kate Broun³, Ms Dianne Eggins³, A/Prof Nicole Rankin⁴, Dr Claire Nightingale⁴, Professor Vivienne Milch⁵, Ms Cindy Toms⁵, Ms Katrina Anderson⁵, Professor Dorothy Keefe⁵

¹The University Of Sydney, Sydney, Australia, ²Lung Foundation Australia, Brisbane, Australia, ³Cancer Council Victoria, Melbourne, Australia, ⁴The University of Melbourne, Melbourne, Australia, ⁵Cancer Australia, Sydney, Australia

1A - Lung Cancer Screening, Central, March 4, 2025, 1:30 PM - 3:00 PM

Introduction/Aim:

Australia's National Lung Cancer Screening Program (the Program) will commence in July 2025. Information and education resources to increase program awareness and knowledge for both the healthcare workforce and the community, are paramount to support participation. A consortium including The Daffodil Centre, Lung Foundation Australia, Cancer Council Victoria and University of Melbourne were engaged by the Australian Government, through Cancer Australia to deliver a suite of information materials, workforce education resources, and a dissemination strategy for the Program.

Methods:

We conducted a scoping review of existing lung cancer screening (LCS) information materials and messaging and an environmental scan of existing cancer screening program resources to inform initial development of the key messages, proposed information resources and the dissemination strategy. These were further developed through individual interviews and co-design workshops with the healthcare workforce and community members.

Results:

The scoping review identified 34 articles reporting strategies to increase awareness and knowledge of LCS. The environmental scan found 13 provider-focused resources and 18 consumer-focused resources across Australian screening programs. Most LCS-specific resources (18 sets) were from the United States, United Kingdom, Canada and Singapore. Key ideas arising from the consultations (28 community; 35 health workforce) and co-design workshops (2 health workforce (n=41), 1 community (n=18)) were the need for: clear information about eligibility criteria, a pack-year smoking calculator, easy-to-read detail about the National Cancer Screening Register, examples of symptoms of lung cancer, clarity on referral pathways, a centralised website to host resources, videos of the screening process, guidance for ineligible participants, and managing conversations including smoking behaviours, and lung cancer stigma. Digital resources were generally preferred to paper resources.

Conclusion:

The suite of developed materials will include succinct, positive messages and be disseminated to raise awareness and knowledge about the program across Australia.

How data linkage can enhance insights from national cancer screening programs

Ms Kirsten Morgan¹, Bina Gubhaju¹, Dr Claudia Slimings¹, Dr Alison Budd¹, David Meere¹, Moira Hewitt¹, Justin Harvey¹, Cindy Toms², Katrina Anderson², Dorothy Keefe²

¹Australian Institute of Health and Welfare, Bruce, Australia, ²Cancer Australia, Surry Hills, 2010

2A - Genomics Data & Technology, Central, March 5, 2025, 11:00 AM - 12:30 PM

Performance monitoring is vital for any screening program to ensure it is meeting its aims – ultimately to decrease morbidity and mortality from cancer. This is achieved by reporting against key elements of the cancer screening pathway, from participation through to the outcomes of incidence and mortality. Performance monitoring of the National Cervical Screening Program (NCSP), and the National Bowel Cancer Screening Program (NBCSP) is undertaken by the Australian Institute of Health and Welfare (AIHW), with data reported against performance indicators. However, some performance indicators for the NCSP and the NBCSP, along with some quality measures for the NCSP, are unable to be reported using program data alone, as data linkage is required. For example, indicators that monitor the effectiveness of HPV vaccination require linkage between data on HPV vaccination, cervical screening, cervical cancer incidence, and mortality.

Linked data can also enhance insights from screening programs by enabling analysis involving a range of events that occur before, at the time of, and after a person's cancer diagnosis, including their screening activity, use of MBS and PBS services, immunisation history, hospitalisation and deaths. The Australian Cancer Plan highlights the value of developing accessible, consistent and comprehensive data and integrated data assets to support the evidence base and improve cancer outcomes.

Under an agreement with Cancer Australia, the AIHW is developing an enduring data linkage infrastructure to support the provision of data and information across the cancer continuum, including for the performance monitoring requirements of the cervical, bowel and lung cancer screening programs. This includes linking the National Cancer Screening Register, the Australian Cancer Database, and selected Clinical Quality Registries to the National Health Data Hub, and enabling linkage with the Australian Bureau of Statistics Person Level Integrated Data Asset. This presentation will describe the project, and the progress made against its objectives.

How to Apply the Guardrails of AI in Health Systems and Services

Mr Mark Nevin²

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3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Artificial Intelligence (AI) shows significant potential in screening, particularly for image-analysis in cancer care, eye care and occupational exposure. The deployment of AI in clinical care is however not without risk due to potentially life-changing consequences; the black-box nature of AI technologies; and their potential to degrade over time. There has been extensive consideration of guardrails for AI, including ethics, standards, regulation, governance, the health workforce and enhanced consumer literacy.

How can health systems and services practically apply these guardrails into a service environment? Fortunately, there are also key learnings from specialties like radiology and ophthalmology that are already using AI safely and effectively. Examples include second reading of mammograms in breast cancer screening and analysing retinal images in diabetic retinopathy screening.

This talk will explain and contextualise the guardrails for AI in health and screening services, outlining the distinct roles of national measures, such as regulation of software as a medical device, service level measures to adopt AI for that provider organisation, and the role of the health workforce in the application of AI to a specific patient context. Key pitfalls will be outlined and a range of practical resources to guide health and screening services in the deployment of AI.

Large-scale protein-disease risk association analysis in the UK Biobank: Introducing Olink® Insight

Dr Renu Balyan¹, Brenton Short², Ola Caster², Linn Fagerberg², Hilda Andersson², Markus Sällman Almén², Ida Grundberg²

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2A - Genomics Data & Technology, Central, March 5, 2025, 11:00 AM - 12:30 PM

Proteomics has emerged as an indispensable tool in biomarker discovery for the detection, prognosis, and treatment of disease. The UK Biobank (UKB) Pharma Proteomics Project represents the prime example of large-scale proteomics, using Olink® Explore to quantify levels of nearly 3,000 proteins in plasma samples from over 50,000 individuals. When combined with e.g., genomic or healthcare data in UKB, the opportunities for biomarker research in biology and medicine are tremendous.

This study aimed to estimate the future risk of a large and diverse set of diseases for all protein biomarkers available in UKB, thus generating a library of protein-disease risk associations freely available to researchers worldwide. In total, 107 diseases were selected from the PheWAS ontology and mapped to diagnosis codes in UKB. For each protein, the association between plasma levels and time to first occurrence (up to 10 years) of each disease was assessed using Cox regression, generating over 300,000 protein-disease risk associations adjusted for sex, age, BMI, and smoking. Our results reveal a large heterogeneity in strength and number of associations both across diseases and proteins. Some proteins, for example GDF15, have statistically significant associations to a high proportion of all included diseases. Several strong associations, e.g., TNFRSF13B with leukemia, have been previously reported in independent research.

The complete set of results has been made freely available via Olink Insight, an online portal to support proteomic research. This new resource can enhance future studies by guiding biomarker selection or acting as a cross-reference post study.

Identification of Frailty in General Practice Data: Validation of a Frailty Flag

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3C - Novel & Emerging Types of Screening, Wynyard & St. James, March 5, 2025, 1:30 PM - 3:00 PM

Introduction: Frailty, a state of increased vulnerability to adverse health outcomes, is a key concept in geriatric medicine. Measuring frailty is essential for personalised care, early detection, targeted interventions, prognostic insights, and efficient resource allocation. This study aimed to validate and compare two frailty measures, obtained through routinely collected general practice data, and currently available in Primary Sense, Australia's leading general practice data extraction and decision support tool.

Methods: This study analysed 142,524 patient records using Primary Sense data from the Gold Coast Primary Health Network. The goal was to validate the Adjusted Clinical Groups (ACG) and ACG Modified (ACG-M) Frailty Flags for identifying patients at risk of frailty against polypharmacy, multimorbidity, high 12-month hospitalisation risk, high ACG complexity, and frequent GP visits. Descriptive statistics compared the prevalence of frailty using both flags with outcomes of interest. Logistic regression assessed the association between ACG and ACG-M Frailty Flags with adverse outcomes, adjusting for age and sex. Receiver Operating Characteristic – Area Under the Curve (ROC-AUC) analysis evaluated the performance of both flags in classifying adverse outcomes.

Results: Of the 142,524 patients assessed, 10,444 (7.3%) were classified as frail using the ACG-M method, almost double the number classified using ACG (n=5,337; 3.7%). The ACG-M Frailty Flag outperformed the ACG Flag in predicting adverse outcomes according to AUC. However, most discriminatory power came from age and sex. Combining ACG-M with age and sex yielded the most accurate classifications, with an AUC between 0.604 and 0.774, depending on the outcome.

Conclusion: The ACG-M was superior in classifying frailty compared to ACG. The ACG-M flag does not require additional tests or resources, making it practical for primary care. Currently scaled nationally through the adoption of the Primary Sense tool, the frailty flag may enhance care for older adults, reduce unnecessary hospital admissions, and improve overall healthcare quality.

Optimising invitation letters to increase bowel cancer screening participation: A qualitative analysis.

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1C - New Evidence to Inform Existing Programs 1, Wynyard & St. James, March 4, 2025, 1:30 PM - 3:00 PM

Objectives: To explore from the perspective of invitees how letters distributed in population bowel cancer screening programs could be modified to increase uptake.,

Methods: Sixty-three people aged 48 to 74 years discussed their preferences regarding letter design and content during semi-structured interviews aided by various example letters inviting participants to take part in the Australian National Bowel Cancer Screening Program (NBCSP). Codebook thematic analysis was used to interpret participant feedback. To generate recommendations for how the letters could encourage screening uptake, themes were sorted into categories each representing how the letters could address the theoretical steps involved in kit return informed by the Integrated Screening Action Model (ISAM), including engaging, deciding to screen, and completing the kit.

Results: According to screening invitees, initial engagement with invitation letters could be facilitated by including additional graphics and colours, minimising text density, and avoiding explicit reference to “bowel cancer screening” on the envelope to mitigate adverse emotional reactions. To motivate invitees to screen, risk-based messaging, highlighting the potential benefits of screening, and providing more detail about the screening procedure were recommended, while “scare tactics” were to be minimised to prevent avoidance of screening. Finally, to encourage kit completion, reminders and deadlines were endorsed. Participants described avoidance of screening due to an incomplete understanding or lack of confidence in their ability to complete the screening kit, therefore including step-by-step instructions in the letter was recommended.

Conclusion: The simplification of letter design, and integration of tailored messaging strategies, simple kit instructions, reminders, and deadlines could boost engagement and help bridge the intention-behaviour gap, driving increased screening participation.

Keywords: co-design; consumer consultation; early detection of cancer; invitation materials

Enhancing Cancer Screening Access for Priority Populations through an Innovative Outreach Mode

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3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Background:

Sydney Local Health District (SLHD) is highly diverse, including significant Aboriginal and Culturally and Linguistically Diverse (CALD) communities, as well as areas of socioeconomic disadvantage. Cancer screening participation rates in these communities are below state averages due to barriers such as cost, cultural differences, and low health literacy. This project integrates education and cancer screening in an outreach model to address barriers for priority populations.

Aim:

To enhance awareness and access to cancer screening for priority populations in SLHD through outreach models of care.

Methods:

Partnerships with local housing and community organisations ensured outreach services were accessible to priority populations. A Women's Health Nurse from Leichhardt Women's Community Health Centre (LWCHC) offered, among other services, self-collected cervical screening and referrals to NSW BreastScreen.

The involvement of Cultural Support Workers (CSWs) and Senior Aboriginal Health Workers (SAHWs) enhanced community engagement, delivered health education, and facilitated patient navigation.

Results:

The integrated outreach model has been successfully piloted in a diversity of community settings, engaging over 400 women from priority populations. A total of 190 consultations were conducted, with 85 women completing self-collected cervical screenings and 75 scheduled for breast screenings. Community feedback highlighted the importance of accessible, easy-to-access health information and cancer screening in increasing engagement.

Conclusions:

This integrated outreach model is effective in increasing cancer screening participation and reducing health inequities among priority populations. CSWs and SAHWs play a crucial role in enhancing cultural safety, patient navigation and cancer screening engagement.

This outreach model underscores the importance of cancer screening in improving health outcomes through early cancer detection for priority population.

Given the successful outcomes to date, this model of care will continue to be refined and scaled up across SLHD.

A novel model of integrated multi-omic newborn screening in South Australia (NewbornsInSA)

Dr Jovanka King^{1,2,3}, Miss Lucy Anastasi¹, Dr Alex Ashenden⁷, Miss Ayesha Chowdhury⁷, Miss Stephanie Skinner², Dr Tomas Rozek⁷, Dr Carol Siu⁸, Professor Christopher Barnett², Dr Jennie Louise⁵, Mr Khoa Lam^{3,7}, Mr Enzo Ranieri⁶, Professor Tracy Merlin⁴, Dr Drago Bratkovic², Dr Benjamin Saxon², Dr Nicholas Smith², Professor Hamish Scott⁷, Professor Karin Kassahn^{7,3}

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2A - Genomics Data & Technology, Central, March 5, 2025, 11:00 AM - 12:30 PM

Background: Newborn bloodspot screening (NBS) programs are highly effective and integral within Australia's healthcare system, enabling early identification and treatment of newborns with a range of severe, childhood-onset conditions. The NewbornsInSA research study is piloting a new multi-omic model to expand the program by hundreds of conditions.

Aims: To validate and pilot a new model of NBS, integrating metabolomics and genomics as complementary tools and assess acceptability and feasibility through stakeholder engagement and cost-effectiveness modelling.

Method: Up to 40,000 unselected newborns will be prospectively recruited for metabolomic screening alongside standard NBS. A subset of 1,000 newborns will be offered genomic screening for >600 genes. Overall cost-effectiveness and diagnostic yield will be compared to standard of care. A validation study was performed, evaluating these screening methods on over 2,300 retrospective dried bloodspots. Metabolomic validation utilised quadrupole time-of-flight mass spectrometry, while genomic validation adopted a virtual panel of over 600 genes on a whole genome sequence backbone. Use of a virtual gene panel restricts reporting to selected conditions meeting inclusion criteria. The panel can be readily adapted to include new conditions, reflecting the latest evidence, without impact on laboratory workflows. Furthermore, genomic data is available for re-analysis over the life course as new clinical questions arise.

Results:

Our validation study showed promising results, suggesting that these novel genomic and metabolomic approaches may be useful to expand NBS programs. This integrated multi-omic model is open for recruitment and is currently being piloted in South Australia. Validation data and early findings from prospectively recruited participants will be presented.

Conclusion: NewbornsInSA is piloting a novel NBS approach utilising metabolomic and genomic technologies for earlier identification and treatment of hundreds of serious genetic conditions, aiming to improve outcomes for newborns and their families in South Australia.

Stakeholder perspectives on a novel multi-omics newborn screening model (NewbornsInSA)

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3C - Novel & Emerging Types of Screening, Wynyard & St. James, March 5, 2025, 1:30 PM - 3:00 PM

Background: Newborn bloodspot screening (NBS) is a highly effective public health initiative, achieving near-complete participation. Consent for NBS is obtained verbally at time of collection, 2-3 days after birth. The NewbornsInSA research study is piloting an innovative model that integrates metabolomic and genomic screening with the goal of earlier detection and treatment of a greater number of conditions. With consideration of the ethical, legal, and social complexities of genetic testing, important questions arise regarding the optimal timing and methods for obtaining informed consent for genomic NBS. Ethical questions surrounding which conditions are reportable, implications for other family members, future use of genomic data, and patient education at population scale must be addressed by the research community.

Aims: NewbornsInSA aims to pilot and evaluate a new model of NBS using metabolomics and genomics as complementary tools. In this arm of the study, we aim to assess public and health care professional's (HCP) acceptability of the program.

Methods: The NewbornsInSA research study engaged with parents and caregivers, HCPs, and advocacy groups in South Australia to understand stakeholder perspectives on offering NBS using multi-omics. Acceptability of the program was investigated through a mixed methods approach including focus groups, interviews, and surveys.

Results: Early observations identified that parents saw benefit of additional screening, but would have liked more information. Participants struggled to articulate where they would source such information. Both families and HCPs emphasised obtaining informed consent as a priority. While HCPs acknowledged the benefits of the study, some expressed concerns about workforce capacity and the need for education for both families and staff.

Conclusion: NewbornsInSA is piloting a novel multi-omic approach to expand NBS. Ensuring safe, effective and acceptable delivery of the program is a crucial element of the study. Early stakeholder views highlight the importance of adequate information provision, informed consent and future workforce considerations.

Obesity, body image and past screening experiences: impacts on breast screening participation

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2C - Psychosocial & ELSI, Wynyard & St. James, March 5, 2025, 11:00 AM - 12:30 PM

Background

Obesity increases risk of multiple diseases, including breast cancer. Individuals with a higher body mass index (BMI) are less likely to consistently engage in breast screening despite excess weight being a significant risk factor for breast cancer. Qualitative research suggests self-stigmatisation and poor prior screening experiences may contribute to this underscreening. We therefore aimed to identify reasons for suboptimal participation across a larger sample to inform strategies to address this underscreened group.

Methods

An online survey evaluating general health seeking behaviours, breast screening experiences and body shame was developed using published research, and perceptions of women with obesity and health professionals. Data was collected from a convenience sample of women living across Australia, via targeted social media advertising. Descriptive statistics, chi-square tests of independence and generalised linear regression were used to analyse the data. All analyses were performed in R.

Results

Among the women fully completing the survey (n=892), negative past screening experiences were correlated with reduced levels of rescreening ($p = 0.0001$). Higher BMI was also associated with reduced rescreening ($p = 0.007$) compared to those with a lower BMI. Increased body shame scores were also linked to negative previous screening experiences ($p < 0.0001$). Conversely, low body shame was associated with higher healthcare seeking scores ($p < 0.0001$).

Conclusion

Body image and past screening experiences influence the extent to which women regularly access breast screening. A higher BMI may be contributing to negative screening experiences via negative body image, both of which may independently reduce screening, and in particular rescreening among women with obesity. Addressing these issues is warranted if screening participation is to be optimised in this priority group of higher risk women, as well as education for mammographic staff on sensitive handling of women with obesity.

Polygenic risk score-tailored cancer screening in primary care: perspectives of general practitioners

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2A - Genomics Data & Technology, Central, March 5, 2025, 11:00 AM - 12:30 PM

Background

Polygenic Risk Scores (PRSs) enable individual stratification of cancer risk, including risk of colorectal, breast, melanoma and prostate cancers. This allows for individuals to be informed about their risk and be recommended risk-appropriate cancer screening that considers their age, sex, family history and genomic test results. General Practitioners (GPs) are the likely healthcare professionals to order PRS tests and deliver results to patients within existing preventative health models.

Aim

To determine GPs' views on the use of PRS to tailor cancer screening in the Australian primary care context.

Methods

Interviews were conducted with Victorian GPs who were either PRS-naïve or had experience using PRSs with their patients in a research context. Inductive and deductive thematic analysis was conducted, incorporating the Consolidated Framework for Implementation Research.

Results

Participants had a broad spectrum of clinical experience and knowledge of genomics, reflecting the spectrum of experience and knowledge of GPs in Victoria, Australia. Common themes included general practice being the appropriate setting for PRS-based approaches, that individualised approaches cancer risk can prompt discussions about positive lifestyle changes and that tailored risk reports are useful tools for the communication of complex health information. Barriers identified by GPs included time constraints on the delivery of preventative health care, education requirements to upskill GPs in genomics, possible psychosocial harms to patients identified as being at increased risk, life insurance implications and added strain to an already struggling health system.

Conclusions

These findings provide insight into the requirements for implementation of PRSs in primary care from the perspective of GPs.

National Lung Cancer Screening Program implementation: Best-practice resource dissemination to health workforce

Ms Dianne Eggins¹, Ms Michelle Kiteley¹, Ms Kate Broun¹, Dr Rachael Dodd², Ms Katie McFadden², Dr Kate Dunlop², A/Prof Marianne Weber², Dr Dan Luo², Mr Mark Brooke³, Ms Kelcie Herrmann³, Ms Brigitta Rose³, Ms Hailey Fisher³, Ms Orelia Bello³, A/Prof Nicole Rankin⁴, Dr Claire Nightingale⁴, Prof Vivienne Milch⁵, Ms Cindy Toms⁵, Ms Katrina Anderson⁵, Prof Dorothy Keefe⁵

¹Cancer Council Victoria, , ²The Daffodil Centre, , ³Lung Foundation Australia, , ⁴The University of Melbourne, , ⁵Cancer Australia, ,

1A - Lung Cancer Screening, Central, March 4, 2025, 1:30 PM - 3:00 PM

Problem

Australia's National Lung Cancer Screening Program will commence in July 2025. The program aims to detect lung cancer early and reduce mortality rates. A consortium, led by the Daffodil Centre, with Lung Foundation Australia, Cancer Council Victoria, and the University of Melbourne were engaged by the Australian Government, through Cancer Australia to develop a suite of information materials and workforce training resources (resources). A key component of this work is the development of a dissemination strategy targeted to the health workforce to optimise program awareness, knowledge, and engagement prior to, and during implementation.

What you did

We developed an evidence-based dissemination strategy based on best-practice frameworks. Extensive consultations were conducted with the health workforce to understand dissemination requirements. Meetings were also held with stakeholders experienced in cancer screening resource dissemination to ensure their lessons were incorporated into the strategy. Additionally, peak bodies, professional colleges, and health communication agencies were consulted to identify effective dissemination tactics.

Results

The strategy includes a phased approach of priming, preparation, and reinforcement, aligned with behaviour change models. Tailored messages were crafted for primary and tertiary care and health support workforces using the 'Diffusion of Innovations Theory' and the 'Awareness, Desire, Knowledge, Ability, and Reinforcement Change Management Model.' In message development, we considered the audience's roles across the screening and assessment pathway. A tactics plan was developed, incorporating a diverse range of potential activities and promotional channels. A comprehensive stakeholder matrix was developed to support targeted dissemination efforts. Additionally, recommendations for monitoring the strategy included feedback loops to ensure continuous improvement.

Lessons

Comprehensive stakeholder engagement that leveraged trusted communication channels to reach target audiences was crucial in the strategy's development. Dissemination is recommended to be delivered in concentrated bursts to reinforce messaging across various channels when health professionals are most receptive.

Building effective evaluations for cancer screening in Culturally and Linguistically Diverse communities

Ms Angelina Belluomo¹

¹Cancer Council NSW, Woolloomooloo, Australia

3B - Cultural & Linguistic Diversity, Town Hall, March 5, 2025, 1:30 PM - 3:00 PM

Since 2020, Cancer Council NSW (CCNSW) has trained community champions to deliver co-designed, in-language workshops for Culturally and Linguistically Diverse (CALD) communities on the importance of cancer screening, whilst also providing navigation support to access these services. This work is based on an evidence check commissioned by CCNSW, which reviewed interventions in Australia and comparable countries that addressed barriers to screening participation among CALD groups. The challenge that lies in continuing these workshops is the lack of peer-reviewed literature on best practice for evaluating interventions targeting CALD communities, making it difficult to both assess their impact and use the results to inform future intervention design and delivery.

Initial workshops were evaluated using in-language, paper-based pre and post surveys combining Likert scale and open-ended questions to measure changes in participants' knowledge, awareness and intent to participate in cancer screening. However, participant feedback revealed limitations in this evaluation design, including long survey completion times impacting response rate, and low confidence of participants when writing in-language, resulting in incomplete surveys.

This feedback, as well as insights from subsequent workshops, has allowed CCNSW to refine its evaluation process for screening interventions targeting CALD communities. By synthesising facilitator and participant input, workshop results, evaluation recommendations and insights from grey literature, CCNSW continues to explore and implement increasingly effective evaluation methods for CALD interventions, the results informing best practice when designing and implementing future interventions. This presentation will highlight key evaluation learnings from the workshops and share strategies to maximise evaluation impact.

CCNSW will continue to address gaps in evaluating screening interventions for CALD communities, contributing to the evidence base so that beneficial changes in evaluation practices can be applied to future interventions. This will help ensure sustainability of initiatives aimed at increasing awareness, knowledge, and intent to participate in cancer screening within CALD communities.

Next-generation proteomic profiling for the development of screening tools for cancer

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2A - Genomics Data & Technology, Central, March 5, 2025, 11:00 AM - 12:30 PM

A comprehensive characterization of blood proteome profiles in cancer patients could provide a better understanding of disease biology, enabling earlier diagnosis, risk stratification and better monitoring of the different cancer subtypes.

Here, we describe the use of next generation protein profiling to explore the proteome signature in blood across patients representing 12 major cancer types. Plasma profiles of 1463 proteins from more than 1400 cancer patients of the Uppsala-Umeå Comprehensive Cancer Consortium (U-CAN) biobank was measured at the time of diagnosis and before treatment. Using machine learning methods, the differentially expressed proteins identified were used to derive models to discriminate among different cancer types. A panel of 83 proteins was found to identify the correct cancer types with AUCs ranging between 0.93 and 1. Preliminary analysis indicated that the protein panel was able to discriminate all cancers from healthy controls and showed promising performance in both staging some of the cancer types, and in detecting very early-stage cancer. The data from this study was made available via the Disease Blood Atlas, an open-access resource.

The results were used as a foundation to establish the Olink Insight platform, an open-access digital data resource to accelerate adoption of proteomics in the research community. In Olink Insight, we are creating a collection of proteomic profiles for important diseases, beginning with cancer. Olink Insight and the Human Disease Blood Atlas represent a significant step towards uncovering human disease proteome and will be a valuable resource for researchers in many areas of medicine and biology.

Curiosity, Community, Change: Approaching participation barriers in culturally and linguistically diverse populations.

Ms Jade Bridgeman¹

¹Cancer Council NSW, Sydney, Australia

3B - Cultural & Linguistic Diversity, Town Hall, March 5, 2025, 1:30 PM - 3:00 PM

In October 2022, Cancer Council NSW received a Stronger Together Grant from Multicultural NSW to deliver in-language cancer screening workshops for Mandarin, Cantonese, Arabic, and Vietnamese-speaking communities across Inner and Greater Western Sydney. More than 130 participants attended one of three workshops, with a high incidence of participants self-reporting that knowledge of screening benefits, eligibility, and access pathways had improved after attending. The success of these outcomes was a result of co-designing all aspects of the workshop with Culturally and Linguistically Diverse (CALD) community leaders, and prioritising the facilitation of open discussion among participants, on knowledge, attitudes, and intention to participate in national screening programs.

This presentation will delve deeper into the critical insights gained during the Stronger Together project, which have been key in guiding our approach in a second iteration of in-language screening workshops in community. One of our core learnings was how important fostering strong partnerships with community facilitators is, so we can collaboratively create an environment that nurtures a shift in participant attitudes toward cancer screening. While co-designed, culturally tailored education is vital for improving understanding of screening programs, it is the active involvement of community partners in identifying and addressing perceived and actual barriers in-workshop, which catalyses the ah-ha moments impacting attitude. Tailored discussions in a culturally safe space allowed participants to confront stigma, fear, and hesitation in participating in cancer screening programs, while clearly explaining how screening benefits outweigh potential risks. Facilitated dialogue on both addressable and more difficult barriers were central to empowering participants to take proactive steps, demystifying the screening process and encouraging behaviour change.

This presentation will provide insights into curiosity-driven collaborative process, highlight the importance of community partnerships, and share strategies for creating impactful learning experiences that resonate with CALD communities, driving sustainable change in screening participation.

Building Capacity of Bicultural Workers: Engaging Under-screened Communities in Cancer Screening

Ms Alana Sadeghi, Ms Ayesha Ghosh¹

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3B - Cultural & Linguistic Diversity, Town Hall, March 5, 2025, 1:30 PM - 3:00 PM

Problem

Australians speaking a language other than English at home participate in Australia's national cervical and bowel cancer screening programs at a lower rate than those who speak English at home. Cultural and linguistic barriers along with low health literacy play a significant role in impacting the screening participation rates for some multicultural communities.

What you did

In 2024, as part of the Victorian Government funded 'Victorian Cancer Screening Framework', Cancer Council Victoria (CCV) built capacity on cancer screening for bicultural workers who have a trusted relationship with priority multicultural communities by partnering with key Victorian multicultural and women's health organisations. CCV staff delivered 3-hour capacity building sessions on the national bowel and cervical screening programs. These sessions were informed by learnings from previous bicultural workforce projects and consultation through online questionnaires to partner organisations.

Results

Over 35 bicultural workers, representing 8 different languages, attended the capacity building sessions. Evaluation surveys completed by 46% of attendees indicated that 70% increased their knowledge and 80% reported an increase in confidence to promote cancer screening messages in their community. All respondents reported they were either likely or very likely to promote cancer screening in their work, and strongly agreed the session supported their health educator role. Preliminary feedback from attendees after the capacity building session indicates increases in the dissemination of CCV resources and the number of events where cancer screening is discussed.

Lessons

Effective capacity building sessions ensure partnerships are developed with organisations with a strong bicultural workforce, allowing for tailored recruitment and education that meets the health literacy needs of multicultural communities. Key learnings from these sessions include consulting with stakeholders prior to the session to understand needs and prioritise their expectations; ensuring training content is in plain English with a teach-back component; and providing in-language resources as post-session support.

Wellness my Way: A digitally-enhanced, consumer-led chronic disease prevention model of care

Ms Clare Johnson¹, Ms Claudia Regan-Knights², Ms Kathy Morrow³, Assoc. prof Sjaan Gomersall^{4,5}

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2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

The increasing burden of preventable chronic disease is adding pressure to an already overwhelmed health system. Proactive prevention and early identification of risk factors are key to providing timely intervention to the right people. A range of evidence-based prevention programs are currently available to communities. However, there is no streamlined referral pathway to facilitate consumers' uptake of these prevention programs.

Wellness my Way (WMW) is a consumer-led prevention model of care leveraging digital technology, telephone-based support, and alternative workforces to deliver chronic disease prevention differently. The initiative is a cross-departmental collaboration between Health and Wellbeing Queensland, South West Hospital and Health Service and Queensland Health's Health Contact Centre, and a deliverable under Making Healthy Happen Action Plan 2024-2026. Implementation of WMW is underpinned by principles of continuous quality improvement and two key implementation strategies, including a community informed marketing campaign; and integration across health and community settings to reach and support local engagement – 'connectors'.

The initiative aims to activate the community to improve proactive identification of those living with modifiable chronic disease risk factors and to streamline pathways to increase participation in evidence-based prevention programs and preventive care. The WMW consumer journey, designed for adults aged above 18 years, involves a self-initiated digital health check, followed by a telephone coaching session to develop an action plan and to facilitate connection to appropriate prevention programs, services, and resources. The Health and Wellbeing Centre for Research Innovation at The University of Queensland contribute expertise to inform process and impact evaluation to assess consumer reach and uptake of WMW, consumer satisfaction, and connection to prevention programs and services.

This presentation will cover: (i) the development of WMW; (ii) consumer-led journey through WMW; (iii) implementation strategies; and (iv) learnings from the quality improvement project.

Maximizing Recruitment for Under-Screened Populations in Queensland's National Bowel Cancer Screening Program

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3A - New Evidence to Inform Existing Programs 2, Central, March 5, 2025, 1:30 PM - 3:00 PM

Bowel cancer is the second most diagnosed cancer in Australia. The National Bowel Cancer Screening Program (NBCSP) functions for early detection of the disease but has faced persistent challenges in recruiting participants, with a national participation rate of 40%. There are a high number of potential participants who never-screen or are under-screened, particularly in Queensland where 66% of previous invitees have missed their most recent screening round. Queensland Health's pilot project explores whether targeted, low-cost SMS behavioural nudges can effectively increase recruitment and participation among these populations, addressing a critical gap in preventive health efforts.

Queensland Health's Cancer Screening Unit initiated the BUMP (Bowel Under-screened Messages for Participation) pilot in November 2023, leveraging monthly data extracts from the National Cancer Screening Register to identify people invited to screen who were due or overdue to return their Immunochemical Faecal Occult Blood Test kits. Individuals were classified by screening history into six groups for targeted SMS-based behavioural nudges. Applying principles of behavioural economics to address known participation barriers, nine cohort messages have been developed and sent monthly using an SMS platform for bulk messaging.

NBCSP kit returns were linked directly to BUMP recipients using the NCSR data. While effectiveness varied by screening history, overall, the BUMP messages had a significant impact. Notably, the proportion of kits returned within three months of the corresponding BUMP SMS was 3.85% higher on average for groups contacted than control groups.

Findings indicate that SMS-based behavioural nudges offer a practical, low-cost method for increasing participation in bowel cancer screening among under-screened groups. This approach enhances early detection opportunities and presents a scalable model that could be embedded into routine screening pathways. These insights support potential policy updates in the bowel cancer screening pathway, with the goal of maximizing participation and improving health outcomes through sustained, preventive engagement.

Tomosynthesis Versus Mammography in Women with a Family History of Breast Cancer

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3A - New Evidence to Inform Existing Programs 2, Central, March 5, 2025, 1:30 PM - 3:00 PM

Introduction: Digital breast tomosynthesis (DBT), compared to digital mammography (DM), has been shown to improve cancer detection in general (population) breast cancer screening. However, very few studies have reported outcomes for DBT screening specifically in women with a family history of breast cancer (FHBC), a common risk factor for breast cancer. This research examines the screening outcomes of DBT versus DM screening in women with a FHBC.

Methods: Collaboratively with US's Breast Cancer Surveillance Consortium, a large cohort of women with FHBC (1st or 2nd degree relatives) who received DBT or DM screening from 2011-2018 was assembled. Using overlap probability weighting based on propensity scores, this preliminary analysis estimated the adjusted rates of screening measures for DBT and DM screening.

Results: The dataset consisted of 502,357 examinations (121,790 DBT and 380,567 DM) with 1-year cancer registry follow-up from 249,586 women with a FHBC. Amongst these and based on self-reported FHBC, there were 16,368 DBT and 58,892 DM examinations with only one 1st degree relative, 51,144 DBT and 163,836 DM in those with 2nd degree only, and 4,760 DBT and 11,696 DM in those with at least two 1st degree relatives with FHBC. For all women with a FHBC, cancer detection rates were 5.72 and 5.37 per 1,000 examinations for DBT and DM, respectively, with an absolute risk difference of 0.34. Corresponding recall rates were 8.59% and 10.10% with an absolute risk difference of -1.51%. Interval cancer rates were 0.96 and 1.01 per 1,000 examinations for DBT and DM, respectively. The sensitivity and specificity were 85.25% (vs 85.10%) and 92.94% (90.39%) for DBT (vs DM).

Conclusions: In the largest analysis to date comparing DBT and DM screening for women with a FHBC, adjusted screening metrics showed DBT had comparable to improved performance.

Is stigma a big deal? National survey insights on lung cancer stigma.

Ms Hannah McGinty¹

¹Lung Foundation Australia, Melbourne, Australia

1A - Lung Cancer Screening, Central, March 4, 2025, 1:30 PM - 3:00 PM

Problem

Australians living with lung cancer face stigma from the public, health professionals, and themselves. Due to past campaigns focussing on lung cancer as a key outcome of cigarette smoking, despite smoking associated with varying poor health outcomes. Evidence shows that stigma surrounding lung cancer and lung disease delays engagement with health professionals, resulting in delayed diagnoses and poorer outcomes, regardless of smoking status. With the National Lung Cancer Screening Program (NLCSP) nearing implementation, it is vital to understand the current experiences of stigma of those with a lung condition.

What you did

Lung Foundation Australia conducted a second iteration of the largest lived experience survey of Australians living with a lung condition. Conducting this survey at intervals helps to identify how these lived experiences and needs changed overtime and enabled a comparison of results from 2024 survey (n=1,183) to the 2020 survey (n=977).

Results:

The 2024 results revealed 57% of participants living with lung cancer experienced stigma (varying levels across: strangers, community, work colleagues to those closer such as friends, family, carers and health professionals). Respondents indicated stigma from health professionals was the most distressing (58%) and a barrier to healthcare (26%). Compared to 2020 findings, in 2024 there were higher levels of stigma experienced from health professionals, family and friends. Further insights will be shared in this presentation.

Lessons

The latest interval data shows there is still significant stigma experienced by those living with lung cancer and lung disease. As the eligibility criteria for the National Lung Cancer Screening Program relies on participants disclosing their smoking history, this presents a risk for NLCSP participation. Understanding this and aiming to reduce the stigma associated with lung cancer and smoking will assist in creating a supportive environment that encourages participation in the NLCSP.

Early insights from priority populations: lung cancer screening and stigma.

Ms Hannah McGinty¹

¹Lung Foundation Australia, Melbourne, Australia

2C - Psychosocial & ELSI, Wynyard & St. James, March 5, 2025, 11:00 AM - 12:30 PM

Problem

The National Lung Cancer Screening Program (program) differs from existing national cancer screening programs as eligibility to participate is determined by several criteria, including tobacco cigarette smoking history. Cigarette smoking, a formerly accepted behaviour, has become highly stigmatised over time. This stigma delays people from exploring symptoms and seeking support and treatment. As we near the commencement of the program, an improved understanding of stigma among a variety of at-risk groups is needed, so efforts can be made to reduce potential barriers.

What you did

As part of work funded by the Department of Health and Aged Care, Lung Foundation Australia have been consulting with the priority populations who are disproportionately impacted by lung cancer; people living in rural and remote areas, people from culturally and linguistically diverse backgrounds, people living with disability (including those living with a mental illness) and people from the LGBTQIA+ community. This included 25 semi-structured interviews with priority population stakeholders, with findings and recommendations shared with the Department.

Results

Priority populations emphasised the fear of being blamed for a potential diagnosis due to a smoking history, by those around them and those within in the healthcare setting. Stigma from health professionals was a recurring theme, with many fearing the additional interactions required to complete the program as more opportunities for stigma to occur.

Lessons

Reducing stigma within the healthcare setting and community will assist in creating a supportive environment to ensure priority populations feel safe participating in this new life-saving program. The public health workforce must be aware of this screening participation barrier and consciously challenge the ingrained stigma that is associated with the behaviour of cigarette smoking, and instead recognise the tobacco industry as the villain.

Recommendations to improve bowel cancer screening equity and access for rural populations.

Ms Nicole Marinucci^{1,2}, Dr Naomi Moy¹, Ms Kate Baker¹, A/Professor Natasha Koloski¹, Dr Ayesha Shah^{1,2}, Professor Gerald Holtmann^{1,2}

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3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Population wide uptake of the National Bowel Cancer Screening Program is critical for its success in improving colorectal cancer morbidity and mortality rates in Australia, yet Program participation for rural and remote populations remains sub-optimal. This grounded theory study explores the barriers contributing to low participation rates in organised cancer screening programs for diverse populations, while investigating community driven, sustainable recommendations to improve equity and access. 31 community members living in outer regional, remote and very remote locations of Queensland, Australia participated in qualitative semi structured interviews between February-June 2023. Interviews were transcribed verbatim and coded using principles of constant comparison. Theory surrounding the phenomena of low participation in bowel cancer screening highlighted broader system level design inhibitors engendering bias and inhibiting participation for geographically diverse population groups. Pervasive themes prohibiting accessibility to the National Bowel Cancer Screening Program for rural and remote communities included a lack of local healthcare availability across both primary care and endoscopic outpatient services, as necessitated for community to engage in Program participation. Consumer-led recommendations highlighted the need for improved access to primary care, tailored rural patient navigation strategies, local endoscopy services for diagnostic follow-up and improved community education. Further Program changes to design and implementation should support principles of community co-design as a fundamental consideration of policy makers, local government departments and health care providers concerned with achieving equity and social justice in Program delivery. Increased participation in under-represented groups could provide significant cost benefit neutral opportunities and improved health outcomes for rural and remote communities.

Informed choice for lung cancer screening: randomised trial of three decision aids

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1A - Lung Cancer Screening, Central, March 4, 2025, 1:30 PM - 3:00 PM

Background/Introduction:

Shared decision-making in the Australian National Lung Cancer Screening Program will involve a consultation between the healthcare provider and the individual to make a joint health decision. This ensures participants make an informed choice about taking part in the program. With input from consumer workshops and expert committees, three decision tools were developed: a 16-page A5 booklet (booklet), 1-page A4 leaflet (leaflet) and a 3-minute animated video (video).

Methods/Approach:

Testing with consumers was conducted via an online survey hosted by Qualtrics. Participants were randomised to one of the three decision support tools and asked a set of questions assessing attitudes/intentions towards lung cancer screening, and acceptability, comprehension, ease of understanding and balance of information balanced (i.e., not leaning either towards or away from screening) of the tools. The primary outcome was informed choice (defined as adequate knowledge and consistency between attitudes and screening intentions). Psychological outcomes (lung cancer worry, anticipated regret, risk perception) were also assessed.

Findings/Results:

705 participants completed the survey: booklet (n=218), leaflet (n=219) and video (n=238). 133 (39%) participants in the booklet group made an informed choice compared with 78 (31%) in the leaflet and 100 (42%) in the video group (difference not significant). Across all of the tools, over 90% found the information clear and easy to understand, around 85% found the tool they viewed as helpful in making a decision about screening, and around 80% would recommend the tool to other people thinking of having lung cancer screening. Almost 80% in each group intended to have screening for lung cancer. Positive attitudes towards screening were lowest in those viewing the leaflet (46% vs 57% booklet, p=0.017 vs 58% video).

Conclusion:

Each of the decision support tools were acceptable and supported informed decision making and would be easily adapted to meet the needs of the National Lung Cancer Screening Program.

Making a Colorectal Cancer Risk Prediction (CRISP) Tool available to the public

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2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

Background: Many Australians are not completing the correct bowel cancer screening for their risk. The CRISP tool is a web-based tool that calculates an individual's risk of developing bowel cancer using lifestyle factors and cancer family history and provides an associated report with screening recommendations. To ensure maximum reach and impact, the CRISP tool could be made publicly available. Previous research has indicated that changes to the tool are required to increase its accessibility and usability.

Aim: This qualitative project aimed to explore perspectives on the usability and acceptability of the CRISP tool as a public-facing tool in individuals aged 50-74 years.

Methods: Semi-structured interviews were conducted on Zoom with participants aged 50-74.

Recordings were transcribed; deductive content and thematic analysis were conducted.

Results: Nine participants (5 females, 4 males, mean (SD) age: 67 (\pm 5) years) were interviewed.

Deductive content analysis identified specific changes to the CRISP tool and reports, including rewording of the questions about diet for clarity, clear ways to indicate how to get more information about specific questions, and restructuring of some of the risk presentations in the reports. Thematic analysis revealed that participants had an overall positive response to the tool and reports. However, emotional reactions to them varied widely, with some participants finding the reports scary and others thinking they might convey a false sense of reassurance or complacency. The positive influence of the reports and other factors on completing bowel cancer screening was also explored, with participants saying that receiving the report would encourage them to do the screening recommended.

Conclusion: These findings will inform changes to the CRISP tool prior to broader acceptability and feasibility testing in a larger cohort to assist in the implementation of CRISP as the first publicly available online bowel cancer risk prediction tool in Australia.

RoBiN (Risk of Breast Neoplasia): Acceptability and feasibility study for personalised screening

Dr Dulashi (Anna) Withanage Dona^{1,2,3}, Dr Sibel Saya^{1,2}, Professor John Hopper², Dr Sue Malta², Associate Professor Jennier Stone³, Dr Daniel Lee⁴, Associate Professor Helen Frazer^{5,6}, Associate Professor Justine Tse^{1,7}, Dr Erika Spaeth Tuff⁸, Professor Jon Emery^{1,9}

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Poster Displays, Pre-Function Area, March 4, 2025, 12:40 PM - 1:30 PM

Background: Roadmap for Optimising Screening in Australia (ROSA) highlights the need for pilot studies which combine risk assessment and recommendations within BreastScreen Australia that includes supplemental screening protocol for women. RoBiN will provide crucial pilot data yet to be tested in Australia at a population level to align with Strategic Objective 1 of the Australian Cancer Plan enabling “evidence-based and personalised cancer risk assessment strategies”.

Method: The study endorsed by BreastScreen Victoria, aims to offer 150 Australian women aged 40-59 a personalised approach to breast cancer screening by offering a risk assessment which incorporates major known breast cancer risk factors (family history, mammographic breast density [MBD], and a polygenic risk scores [PRS]) to tailor subsequent screening recommendations based on the individuals’ personal risk of developing breast cancer, as an alternative to the current population-based approach.

Women attending the BreastScreen Victoria Burgundy Street clinic for a mammogram will be invited into the study. DNA (buccal swab) will be collected to calculate a PRS. Clinical and genetic risk factors will be combined to calculate 10-year and lifetime risk of breast cancer using the validated BRISK model which does not require the collection of complex pedigree and medical history data.

The calculated risk will be mapped onto risk categories defined by Cancer Australia and used to tailor supplemental breast cancer screening. Participants and their general practitioner will receive a risk report summarising their breast cancer risk, recommendations for any supplemental screening or changes to frequency of subsequent screening.

Conclusion: Assessing the acceptability and feasibility of this approach to breast cancer risk assessment will help identify best practice for screening recommendations within primary care and inform more effective and efficient screening pathways to improve breast cancer outcomes in Australia.

Addressing inequities for Māori and Pacific through AAA/AF screening in New Zealand

Dr Karen Bartholomew¹, Dr Peter Sandiford¹, Ms Erin Chambers¹, Dr Andrew Hill¹, Ms Anna Maxwell¹, Professor Rob Doughty², Associate Professor Katrina Poppe², Professor Greg Jones³, Ms Cleo Neville¹, Dr Lupe Taumoepeau¹, Dr Sandra Fitzgerald², Dr Aivi Puloka¹, Dr Leanne Young¹, Mr Scott Abbot¹

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2B - Indigenous & Priority Populations, Town Hall, March 5, 2025, 11:00 AM - 12:30 PM

This presentation will report on a 10 year programme of work into AAA and AF screening in Aotearoa New Zealand, focused primarily on the Indigenous Māori population and more recently Pacific people. The programme has screened approximately 7,000 people across 12 research projects. The research projects have included examining the prevalence of AAA and AF; the addition of other co-benefit interventions including blood pressure, smoking cessation, and cardiovascular risk assessment point-of-care blood tests; the feasibility and acceptability of research blood tests including AHRR epigenetic marker for smoking exposure and NT-pro-BNP for heart failure (including assessing cultural safety and potential ethnic inequities in these tests); and participant and whānau (family) experience of screening and co-benefit interventions. The results and key lessons learned through these projects will be presented including AAA and AF prevalence by smoking status, ethnicity and sex; participant, whānau, community and health professional experience; and the findings of the novel research blood test analyses. The programme of work is informing national planning for a AAA screening programme in Aotearoa aimed at reducing inequities, and which may be the first AAA programme internationally to include women. Future directions will be noted including the potential alignment with lung cancer screening and other screening opportunities (Hepatitis C, H.pylori, linkage to current cancer screening programmes), AHRR or smoking status targeted eligibility, and novel workforce considerations such as the Kaimatawai Puku (AAA screener) model developed in the programme.

Harnessing narratives to increase bowel cancer screening in CALD communities: methodological insights

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Poster Displays, Pre-Function Area, March 4, 2025, 12:40 PM - 1:30 PM

Australia's National Bowel Cancer Screening Program remains an underutilised public health resource, especially in culturally and linguistically diverse (CALD) communities. Crucial to increasing participation among CALD populations is engaging low-literacy groups and overcoming difficult-to-change beliefs and attitudes, such as fear, fatalism, disgust and stigma. The use of narratives, or stories, in health communications show promise in engaging low-literacy and CALD populations, influencing beliefs and attitudes and driving health behaviour change. This study describes the methods used to generate and construct narratives for the "Good Stories, Better Health" bowel cancer screening education program developed for the Macedonian community. In-depth interviews were conducted with participants from the Macedonian community to elicit personal stories and bowel cancer screening experiences. Interviews consisted of asking open-ended questions to understand the participant's experiences and probing for key elements of the story based on a simple narrative structure. The interview transcripts were analysed to identify the key narrative elements and identify experiences to address barriers to bowel cancer screening in the target population. Interview recordings were arranged to create compelling bowel cancer screening stories and embedded into an interactive community education program.

Responsive opportunistic hepatitis C and HIV testing for priority populations

Ms Grace Robin¹, Dr Shih-Chi Kao¹, Mr Eli Ryan¹, Pippa Bray², Bianca Prain³, Dr Phillip Read⁴, Professor Philip Cunningham⁵, Nigel Carrington³, Professor Jason Grebely⁶

¹Priority Populations Programs, Sydney Local Health District, Forest Lodge, Australia, ²Hepatitis NSW, Surry Hills, Australia, ³Centre for Population Health, NSW Health, St Leonards, Australia, ⁴South Eastern Sydney Local Health District, Randwick, Australia, ⁵St Vincent's Centre for Applied Medical Research, St Vincent's Hospital Sydney, Darlinghurst, Australia, ⁶Kirby Institute, Randwick, Australia

2B - Indigenous & Priority Populations, Town Hall, March 5, 2025, 11:00 AM - 12:30 PM

Title:

Responsive opportunistic hepatitis C and HIV testing for priority populations

Background:

Sydney Local Health District (SLHD) has delivered opportunistic hepatitis C (HCV) and HIV testing in community settings since 2020, using dried blood spot testing (DBS). The 2022 integration of the National Australian HCV Point-of-Care Program (POC) led to redesigning outreach testing to apply the most acceptable testing modality of DBS or POC for priority populations in community settings.

Aim:

To increase acceptability and uptake of HCV and HIV testing and treatment for priority populations by adapting testing modalities to suit need and setting.

Method:

Strengthening and expanding SLHD and community partnerships refined the model's delivery to reduce barriers for priority populations by being in their community settings, including Medicare ineligible people. Non-clinical staff including Senior Aboriginal Health Workers, Health Promotion project officers and peer workers led and conducted community testing, and streamlined referral, treatment and service navigation by clinical staff across SLHD. Clinics were held at locations accessed by priority populations, including community corrections, pharmacies, public and private drug health services, community and homelessness services, mental health services, public parks, social housing, and women's shelters.

Results:

In the 2023-2024 financial year 721 HCV and 115 HIV tests were conducted at 21 community sites. Testing resulted in 3.4% HCV reactivity rate compared to the national rate of 0.78%, and no HIV reactivity was detected. Priority population members and community service staff were highly positive about the outreach model's responsive approach, reducing barriers to engage in healthcare and increasing health navigation support for individuals. The model's flexibility enabled integration of testing into broader health promotion and community events.

Conclusion:

This outreach model demonstrated that flexible approaches to testing and place-based care for priority populations increases healthcare engagement and acceptability of HCV and HIV testing.

Bowel Cancer Screening and Accessibility for People with Disability: a qualitative investigation.

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2C - Psychosocial & ELSI, Wynyard & St. James, March 5, 2025, 11:00 AM - 12:30 PM

Despite the many reported successes of the National Bowel Cancer Screening Program (NBCSP), limitations in collecting accurate participation data across population groups persist, making it difficult to demonstrate equitable program impact across Australia's diverse population. One of these groups is people with disability. While available data is limited, that which is available shows that people with severe or profound activity limitations participating in the NBCSP show higher screening positivity rates, a lower diagnostic assessment follow-up rate, and experience a longer median time between positive screen and diagnostic assessment, demonstrating Program inequities. Against this research background a deep consumer consultation was facilitated to create knowledge gains on barriers/enablers to Program access for people with disability. The research design adopted multiple qualitative data collection methods, including arts-based methodologies to provide rich and empathetic insight into the lived experience of NBCSP participation for people with disability. 15 participants with diverse communication, mobility and self-care abilities participated in online in-depth interviews. Data findings indicate several key system level barriers preventing equal access to Program participation. While barriers differed significantly between disability sub-populations, several synergies remained around the need for simplification of instructions, improved kit packaging and design and the need for prompts or helpline information to facilitate engagement with a carer to support successful iFOBT completion. This study provided novel, critically needed information and empathetic insights into the lived experience for people with a disability. Results highlighted the need for priority population consideration and deep consumer consultation to improve the design of the iFOBT, with particular focus on the packaging/kit instructions, with a call for easy read formats, video guides and references to support carer engagement. Findings will be shared and used to shape policy and practice impacting system level barriers to equal program access for diverse populations across Australia.

Home blood pressure measurements are not performed according to guidelines.

Miss Eleanor Clapham¹, Dr Dean Picone^{1,2}, Mr Samuel Carmichael¹, Professor George Stergiou³, Professor Norm Campbell⁴, Mr John Stevens¹, Mrs Carol Batt¹, Professor Aletta Schutte⁵, Dr Niamh Chapman^{1,2}

¹Menzies Institute for Medical Research, University Of Tasmania, Hobart, Australia, ²School of Health Sciences, Faculty of Health and Medicine, University of Sydney, Australia, Sydney, Australia, ³Hypertension Center STRIDE-7, School of Medicine, Third Department of Medicine, Sotiria Hospital, National and Kapodistrian University of Athens, Athens, Greece (G.S.S.), ⁴Departments of Medicine, Community Health Sciences and Physiology and Pharmacology, University of Calgary, Calgary, Alberta, ⁵School of Population Health, University of New South Wales; The George Institute for Global Health, Sydney, Australia

2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

Background. Home blood pressure measurement (HBPM) utilizes digital health technologies for BP measurement, recording, reporting and monitoring. Patients need education to perform HBPM properly. It is unknown how HBPM is performed and what education is provided, which was the aim of the study.

Methods. Mixed-methods study among Australian adults who perform HBPM (June-Dec 2023). Participants completed a 30-item online survey on the guideline recommendations followed and education received for HBPM. Phone interviews were conducted among a purposive sample to explore survey topics.

Results. Participants (n=350) were middle-aged (58±16 years, 54% women) and most (n=250, 71%) had hypertension. One-third (n=118, 34%) of participants used a validated BP device for HBPM. Most purchased their device from a pharmacy (n=130, 69%) or online (n=39, 21%), using online reviews and brand recognition to select a device. When measuring BP, guideline recommendations for HBPM were not always followed by participants. Most participants measured BP seated (n=316, 90%) with the cuff fitted to a bare arm (n=269, 77%). Only 15% measured BP in the morning and evening (n=54). Almost all (n=277, 93%) participants sought information about HBPM; mostly from a GP (n=169, 61%) or online (n=165, 60%). Interview participants preferred trustworthy websites from well-known organizations and avoided international sites. Participants who sought information online did not perform higher quality HBPM.

Conclusions. HBPM is not performed according to guideline recommendations. Adults seek information about HBPM online, however this did not improve the quality of HBPM. These findings highlight a need for effective education to support HBPM, and patient facing tools and technologies which support adults to measure, record and report home BP readings in a standardized manner for effective high BP screening and ongoing management.

Adults need support to select validated BP devices for use at home.

Miss Eleanor Clapham¹, Mr Samuel Carmichael¹, Dr Kaylee Slater², Professor Aletta Schutte³, Dr Dean Picone^{1,2}, Dr Niamh Chapman^{1,2}

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2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

Background. BP measurement is required to screen for high blood pressure, which is the most important risk factor for morbidity. Only 20% of available blood pressure (BP) devices are validated and little is known about BP devices adults use for home BP measurement (HBPM). This study sought to determine how adults obtain BP devices, the factors considered when choosing a device, and their validation status.

Methods. Mixed methods study with an online survey (n=241) and phone interviews (n=27) among adults who perform HBPM in Australia (June-Dec 2023). Survey questions determined how devices were obtained, device make/model and factors influencing device choice. Interviews explored the experiences when obtaining a device, including factors influencing choice. Device validation status was determined using STRIDE BP and Medaval databases.

Results. Participants were 58±16 years, 52% women and most purchased a device for HBPM (91%, n=189), while 9% (n=19) borrowed a device. Most devices were purchased from pharmacies (69%, n=130; 53% validated) or online (21%, n=39; 51% validated).

Accuracy was the most important consideration (n=129, 77%) when choosing a device. Participants used brand recognition, online reviews and cost to choose an 'accurate' device but did not consider validation status. Healthcare practitioners and retail workers did not advise on device accuracy at point-of-sale. Interview participants described avoiding cheaper devices and preferred device brands used in healthcare settings.

Conclusion. Only half of the BP devices used for HBPM were clinically validated, emphasising the importance of supporting adults to use validated devices. This study illustrates how adults obtain a BP device for HBPM and draws from their real experiences to recommended strategies to direct adults to validated devices.

Early detection of breast cancer in women 40-49: a need for review

Dr Louiza Velentzis^{1,2}, A/Prof Carolyn Nickson^{1,2}, Mr Paul Grogan¹, Professor G, Bruce Mann³, Professor Karen Canfell¹

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3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Background

Breast cancer is the second-highest disease burden in Australian women aged 40-49, with poorer relative survival compared to older women. Over the last two decades, incidence has increased by 25% among women aged 40-44 and by 46% among women aged 45-49, with 15% of Australian breast cancers now diagnosed in women aged 40-49. Early diagnosis is important to reduce the burden of breast cancer, but little is known about the effectiveness of relevant health services in this age group.

Aims

To evaluate the effectiveness of current Australian services for the early detection of breast cancer in women aged 40-49.

Methods

A desktop analysis including a review of guidelines and policies, observed utilisation and estimated effectiveness of services for the early diagnosis of breast cancer for women aged 40-49.

Results

For BreastScreen, women aged 40-49 are eligible but not actively invited to participate, receiving ~10% of screens nationally. Participation rates vary markedly by state and territory, with four-fold differences between some jurisdictions. Policies vary slightly between jurisdictions, and screening of women aged 40-49 is not subject to the same quality assurance monitoring as for the target age group (50-74), with limited performance benchmarks specified or assessed for younger screening participants.

Outside BreastScreen, access to early diagnostic services depends on where women live, which provider they see and which guidelines are followed (e.g., RACGP 'Red Book', RANZCR statements, eviQ), with an overreliance on patient-initiated action and out-of-pocket contributions. The utilisation and effectiveness of early detection services for women 40-49 cannot be readily determined based on routine data collection and reporting mechanisms.

Conclusions

The effectiveness of early detection services for women aged 40-49 requires a comprehensive and targeted review. This would help inform policy decisions about how to best reduce the burden of breast cancer in this age group.

Balancing Cancer Stage, Interval Cancers, and Overdiagnosis in Breast Screening

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3D - Cancer, Museum, March 5, 2025, 1:30 PM - 3:00 PM

Population breast screening helps reduce breast cancer mortality, but a more risk-based approach could better balance the benefits and harms, especially for women at higher risk and with denser breast tissue. The benefits include earlier diagnosis and fewer interval cancers, although the risk of overdiagnosis must be considered.

We evaluated how different combinations of screening technologies and screening intervals might affect diagnosis stage, interval cancers, and overdiagnosis in Australia for higher-risk women aged 50-74.

Using the Policy1-Breast micro-simulation model, we projected outcomes for the first decade of a risk-stratified screening protocols starting in 2025. We modeled screening test sensitivities up to 50% higher than current digital mammography, based on published estimates for various technologies. Interventions targeted the 20% of the population with the highest lifetime risk, correlated with higher breast density. Screening intervals were either biennial or annual. Sub-models for tumor natural history and mortality allowed us to estimate tumor characteristics at diagnosis and overdiagnosis rates. We compared population-level outcomes within the higher-risk group, focusing on rates of cancers with worse prognosis (grade 3, large (>15mm), with nodal involvement), interval cancers, and overdiagnosed cancers.

Our model suggests significant changes in outcomes with risk-targeted screening technologies, showing a trade-off between benefits and harms. For the scenarios modelled, among higher-risk women, reductions in cancers with worse prognosis was strongly correlated with reduced interval cancers (correlation coefficient $r=0.99$, $p<0.0001$) and increases in overdiagnosis ($r=-0.76$, $p=0.004$). Significant correlation between interval cancers and cancers with worse prognosis is also corroborated when assessing according to screening interval.

This analysis highlights the need to estimate and plan for both benefits and harms when identifying optimal risk-based screening protocols.

Program Guidelines for Australia's National Lung Cancer Screening Program: a consultative approach

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1C - New Evidence to Inform Existing Programs 1, Wynyard & St. James, March 4, 2025, 1:30 PM - 3:00 PM

Introduction

The National Lung Cancer Screening Program (NLCSP) will commence from July 2025. Cancer Australia commissioned The University of Melbourne in partnership with The Australian National University and Lung Foundation Australia, to develop Program Guidelines. The Guidelines set out best practice recommendations to inform program delivery and enable healthcare providers to facilitate participants' navigation through the screening and assessment pathway. The Medical Services Advisory Committee (MSAC) recommendations determine the Program parameters.

Method

Guideline development involved a robust approach of extensive consultation with key stakeholders to consider breadth of content (e.g., cultural safety, nodule management protocols, results communication) for target audiences. Methods included forming a multidisciplinary working group, producing draft content, conducting interviews, focus groups and workshops to guide and refine content. Team members have extensive experience in developing evidence-based guidelines, cancer screening, smoking cessation, implementation, Indigenous research methodologies and together, led engagement with multiple stakeholder groups including clinical, consumers and policy stakeholders and Aboriginal and Torres Strait Islander health professionals and community members. Cancer Australia team members facilitated document review across the Program governance.

Results

More than 140 stakeholders participated, representing diverse groups of Aboriginal and Torres Strait Islander communities, priority populations, clinical and research disciplines, consumers and policymakers. Participation extended across all states and territories, geographic areas and healthcare systems. We will present the final Guidelines and summary that details the Program screening and assessment pathway.

Contribution to policy, practice and/or research

It is critical to engage stakeholders in inclusive and consultative approaches to Guideline development. The Guidelines provide evidence-based recommendations and detail the processes and clinical protocols that will support healthcare providers to navigate participants' journeys across the Program. Collaborative efforts will help to build awareness and trust to ensure delivery of a safe, equitable and high-quality lung cancer screening program for the Australian community.

What lessons from existing cancer screening programs will ensure equitable lung screening?

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1A - Lung Cancer Screening, Central, March 4, 2025, 1:30 PM - 3:00 PM

Background: Australia has three existing organised national cancer screening programs for cervical, breast and bowel cancer. The National Lung Cancer Screening Program (NLCSP), commencing July 2025, is the first cancer screening program introduced in Australia in nearly 20 years. It aims to detect lung cancer early and reduce mortality rates.

Learning objectives and outcomes: Utilising the Australian Population Based Screening Framework and following the screening and assessment pathway, this presentation is a synthesis of the evidence to identify and examine lessons from Australia's cervical, breast and bowel cancer screening programs that can guide implementation of an accessible and equitable NLCSP. Outcomes of the presentation include the identification of success factors and evidence-based strategies critical to the roll out of equitable lung cancer screening in Australia.

Findings: Key lessons from established screening programs are identified across the screening and assessment pathway and include:

Recruitment – education for primary care workforce to increase program knowledge and confidence prior to program commencement, including use of the National Cancer Screening Register; understanding and addressing the associated barriers and enablers with tailored communications and community-led activities to increase NLCSP awareness and participation, particularly among priority communities; building capacity of nurses, Aboriginal health workers and other health and community workers to identify eligible participants and navigate to screening.

Screening – access to no cost, culturally safe, geographically close and accessible screening services, including mobile screening vans, out of hours appointments, group bookings and associated health promotion activities.

Assessment – access to timely and culturally safe assessment and diagnostic testing that includes elements such as screening navigators and co-ordinated follow up function processes to prevent loss to follow-up.

Conclusion: Applying these lessons will ensure optimal uptake of the NLCSP, ultimately maximising its full potential to saving lives and reducing inequity in lung cancer outcomes.

The Breast ROSA Project 2023 Recommendations and Roadmap – one year later.

A/Prof Carolyn Nickson^{1,2}

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3A - New Evidence to Inform Existing Programs 2, Central, March 5, 2025, 1:30 PM - 3:00 PM

BACKGROUND

Over 2018-2023, the Australian Government Department of Health and Aged Care funded Cancer Council Australia to consider options for a more risk-targeted approach to population breast cancer screening. This comprehensive analysis was led by the Daffodil Centre and named the Breast ROSA (Roadmap to Optimising Screening in Australia) Project. Following extensive research, stakeholder consultation and technical reports to government, in October 2023 the project delivered and published its landmark Recommendations and, to help maintain momentum, a 5-year Roadmap. The 25 recommendations covered the domains of policy and guideline reviews, enhanced data collection and reporting, evaluation of linked data, targeted evidence reviews and research to address priority evidence gaps, Australian trial design, and consumer and stakeholder engagement.

AIMS

To assess progress against the 2023 Breast ROSA 5-year Roadmap.

METHODS

Roadmap progress is assessed according to new information as gleaned from (i) peer-reviewed publications from Australian settings; (ii) BreastScreen Australia Conference papers; (iii) Australian government-led activities; and (iv) Australian stakeholder perspectives.

RESULTS

Peer-reviewed publications included updated evidence on screening behaviour and technologies, trial protocols related to breast density notification and screening technologies, and emerging topics such as AI to support reading and risk assessment and regional variations in breast cancer control. BreastScreen Australia Conference papers included insights from the COVID pandemic, recommended approaches to consumer engagement, implementation of new screening technologies, decision aids to support risk-adjusted screening, and the potential to assess breast cancer risk in primary care. In terms of government-led activities, in 2023 the Australian Health Minister announced a BreastScreen Australia National Policy and Funding Review including consideration of the ROSA Project recommendations, with the final report and recommendations due by end 2024. Further insights on ROSA Roadmap progress and stakeholder perspectives will be available following the release of that report, and will be included in this presentation.

Listen to Your Heart and Mind: a case for combined health screening

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1B - Cardiovascular & Chronic Disease Screening, Town Hall, March 4, 2025, 1:30 PM - 3:00 PM

Background and Aim. Raised blood pressure (BP) is a major risk factor for heart disease, stroke and dementia, the leading disease burdens in older Australians. Yet, one in two Australians with raised BP are unaware of it. Atrial fibrillation (AF), an irregular heart rhythm that accounts for 10% of strokes, is similarly under-detected. Cognitive impairment (CI) increases risk of dementia by three- to five-fold but is rarely screened. Treatment of hearing loss (HL) may slow down progression of dementia, but there is low uptake of hearing services and treatment among older Australians. This study aims to determine the feasibility and acceptability of a combined screening approach to improve detection of raised BP, AF, CI, and HL in older adults.

Methods. Adults aged ≥ 65 years without a prior diagnosis of CI or dementia were recruited through community group newsletters and noticeboards. Participants underwent BP and AF screening using an automatic BP monitor with AF detection, then underwent cognitive (General Practitioner Assessment of Cognition, GPCOG) and hearing (Hearing Handicap Inventory for Elderly Screening, HHIE-S; pure-tone audiometry) assessments. A subset of participants was interviewed post study to evaluate feasibility and acceptability of the combined screening.

Results. Of the 35 participants (age 73 ± 6 years, 51% females), screening detected two new raised BP cases, one new AF, and seven with possible CI (GPCOG score < 9). Thirteen participants had measured HL, but half ($n=7$) did not self-report hearing handicap (HHIE-S score < 10). Interviews ($n=16$, 50% females) revealed that combined screening was acceptable and feasible as participants felt it was “convenient”, “saves time”, and that “...knowing the outcome of three things at one appointment is more efficient”.

Conclusions. Combined screening for raised BP, AF, CI and HL in older adults is feasible and acceptable, suitable for implementation through polyclinics or incorporated into existing health services.

Targeted Melanoma Screening Programs: Role of 3D Total-Body Photography and Artificial Intelligence

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2A - Genomics Data & Technology, Central, March 5, 2025, 11:00 AM - 12:30 PM

Melanoma is the third most common cancer diagnosed in Australia. Treatment advances have improved melanoma survival rates, however the cost to the healthcare systems and patients' psychosocial wellbeing remain high, particularly for late-stage cases. Reducing melanoma burden through early detection, is a national priority. Our team is working towards a national targeted melanoma screening program for which optimal risk-stratification will be critical to achieve improved clinical outcomes and cost-effectiveness.

To achieve objective risk stratification based on skin features we use innovative skin imaging and artificial intelligence (AI) methods. The Australian Centre of Excellence in Melanoma Imaging and Diagnosis (ACEMID) is currently collecting demographic, clinical, 3D total-body photography (3D-TBP), digital dermoscopy, pathology and genomic data from 15,000 Australians across 15 research nodes. This comprehensive multimodal dataset facilitates the development and validation of AI tools for melanoma detection and management.

The extensive ACEMID imaging data has informed a pipeline design for AI algorithms to provide objective phenotypic risk-assessment of naevus count, sun damage and freckling density. AI tools are created using convolutional neural networks-based algorithms, with statistical validation showing substantial agreement with expert human observers. These algorithms are integrated into a phenotypic risk score using structural equation modelling to improve traditional risk calculators.

The ACEMID pipeline has several critical advantages over previous diagnostic AI tools for melanoma, including: a) a diverse training dataset reflecting the Australian population and skin types, including people from regional and rural areas; b) training on individual lesion images, with integrated contextual information and an individual's whole skin ecosystem; c) extensive expert labelling of lesion images; d) pathology data collection and consensus team; e) prospective validation of digitally enhanced clinical workflows.

Learnings from developing, validating and implementation of these AI tools will inform the structure of a future targeted melanoma screening program as we work towards better clinical and economical outcomes for Australia.

EMPOWERING STROKE RISK ASSESSMENT: A MOBILE HEALTH INITIATIVE IN INDONESIA

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Poster Displays, Pre-Function Area, March 4, 2025, 12:40 PM - 1:30 PM

Background and Aims

The Stroke Risk Calculator campaign in Indonesia aimed to empower individuals with tools to assess and reduce their stroke risk. Developed in collaboration with the Auckland University of Technology and leveraging the Stroke Riskometer app, this campaign addressed the increasing global stroke risk, which now suggests a lifetime stroke risk of 1 in 4 individuals according to the World Health Organization.

Methods

The campaign utilised the Stroke Riskometer, enabling users aged 20 to over 90 to evaluate their stroke risk through a 3-minute questionnaire based on 20 scientifically validated questions. The app provided users with actionable insights to lower their stroke risk, contributing to the vision of "Going for Zero" cardiovascular and cerebrovascular events through preventive healthcare.

Results

The study, conducted from November 2021 to October 2022, found that regular home blood pressure monitoring could reduce systolic blood pressure by an average of 10 mmHg, significantly lowering stroke risk. The campaign successfully raised awareness of stroke prevention through regular blood pressure monitoring and lifestyle management, highlighting the critical role of early detection and prevention in mitigating stroke risk.

Conclusions

The campaign effectively increased stroke awareness and prevention in Indonesia, demonstrating the potential of digital health tools like the Stroke Riskometer in early risk detection and proactive health management. The collaboration and use of mobile technology represented a significant step forward in the global fight against stroke, emphasising the importance of preventive healthcare and regular monitoring of vital signs for at-risk populations.

New eligibility, new opportunities: Exploring Bowel Screening profiles in the 45-49 cohort

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3B - Cultural & Linguistic Diversity, Town Hall, March 5, 2025, 1:30 PM - 3:00 PM

Background/aims

In July 2024, the Australian Government lowered the eligibility age for the National Bowel Cancer Screening Program (NBCSP) from 50 to 45. Uptake in this new cohort is crucial for the NBCSP's effectiveness in reducing bowel cancer deaths through early detection and treatment. This research, conducted in partnership with the Department of Health and Aged Care, aimed to examine anticipated screening profiles amongst Australians aged 45-49 years and identify perceived barriers, motivators and information needs to inform communication strategies.

Method

A mixed methods study included a national survey of 1036 individuals aged 45-49 years and focus groups with 230 individuals including general, culturally diverse and First Nations groups.

Results

23.8% of respondents were classified as "Screeners," having completed a colonoscopy or FOBT, or been advised to screen by colonoscopy in future. Among non-screeners, 18.5% were "FOBT-Naïve," unaware or uncertain about the test, 53.8% were "Interested," likely to screen if given opportunity, and 4% were "Refusers," unlikely to participate.

Whilst awareness of bowel cancer and the NBCSP was high, knowledge about personal risk and severity of bowel cancer was lower, reducing urgency to act. Respondents displayed positive attitudes toward screening and strong motivation to participate. Some expressed concerns about the test's efficacy and trust in the home kit. Culturally diverse and First Nations groups reported vastly lower awareness, knowledge and greater screening barriers.

Conclusion

To drive participation amongst this new cohort, education-based strategies should target the "interested" group, leveraging their enthusiasm with more detailed information to foster early adoption while addressing the information gaps in the FOBT-Naïve group. Communications should raise awareness of personal susceptibility, dispel misconceptions about age and symptoms and emphasise early detection messages that offer hope and positivity. Significant, targeted capacity building effort will be needed to address substantial barriers for First Nations and some cultural groups.

CODESIGNING TRANSFORMATIVE SOLUTIONS TO PREVENT STROKE AND OTHER NON-COMMUNICABLE DISEASES

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1B - Cardiovascular & Chronic Disease Screening, Town Hall, March 4, 2025, 1:30 PM - 3:00 PM

Background and Aims

The escalating burden of non-communicable diseases (NCDs), with stroke at the forefront, calls for innovative, culturally attuned health solutions. We aimed to develop the PreventS-MD and the Stroke Riskometer app, integrating these technologies and using co-design principles including community engagement and cultural sensitivity.

Methods

We conducted consultation meetings with healthcare professionals, technology experts, and communities most impacted by stroke and other NCDs in New Zealand and worldwide. This collaborative effort was directed at transcending traditional healthcare delivery by developing user-centered tools and educational programs that are culturally relevant and directly informed by the needs and preferences of the target populations. The proposed technologies were demonstrated online or in-person for stakeholder feedback and were updated accordingly taking into consideration the linguistic and cultural diversity.

Results

The co-design process facilitated the development of the PreventS-MD and Stroke Riskometer - tools designed to provide individuals with personalized health insights and actionable strategies for preventing stroke and NCDs. Preliminary feedback from community engagements and pilot studies suggest that these tools are well-received, effectively enhancing health literacy, promoting preventive health behaviours, and fostering community solidarity against NCD challenges.

Conclusions

PreventS-MD and Stroke Riskometer tools are well-received, potentially enhancing health literacy and promoting preventive health behaviours. A holistic, co-designed approach to NCD prevention, integrating technology with culturally grounded, community-led initiatives may improve the efficacy of prevention efforts to reduce NCDs, but this requires testing in diverse populations. Future community-based projects and translation would help bridge the gap between technology and tradition, offering support tailored to unique cultural and social dynamics.

Australian preferences for potential genomic risk assessment to inform risk-tailored cancer screening

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2A - Genomics Data & Technology, Central, March 5, 2025, 11:00 AM - 12:30 PM

Background: Genomic testing (for “polygenic risk scores”) can provide valuable information on individuals’ risk of different diseases including cancers, presenting an opportunity for risk-tailored cancer screening to improve early detection and health outcomes. Potential programs consist of several stages: initial decision to take the genomic test, risk assessment (test itself and return of results), and subsequent cancer screening. Public preferences for program features at each stage can influence a program’s acceptability, uptake, and effectiveness.

Aims: (1) To quantify the preferences of the Australian general population for potential features of genomics-informed risk tailored screening; (2) To assess heterogeneity of preferences.

Methods: Two discrete choice experiments (DCEs), a type of online survey, were conducted focusing separately on the decision-making and risk assessment stages. Each DCE involved 800 participants across Australia. Participants were presented with 12 choice tasks, and results were analysed using conditional logit, mixed logit and latent class models, and the willingness-to-pay calculated.

Results:

For the initial decision-making stage, few features were significant, with the strongest preference for a comprehensive risk test including multiple cancers, or multiple cancers and other serious diseases, rather than a single-cancer test.

For the risk assessment stage, participants preferred more comprehensive testing, results including advice on non-genomic risk factors, and genomic analysis by a government health department (versus an international company). Some preferences were particularly strong, with willingness-to-pay of \$168 for a comprehensive multi-disease test (versus a single-cancer test), and \$140 to avoid opting out of risk assessment. Those with negative attitudes towards genomics were more likely to prefer opt-out and indicate concerns about DNA data storage.

Implications: This study suggests that the public would be interested in genomic risk assessment, with strong preferences for more comprehensive tests. These findings can help design potential acceptable and effective genomics-informed cancer screening programs tailored to the Australian context.

A national survey of stakeholder opinions on a risk-tailored melanoma screening program

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2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

Background: In Australia, skin checks primarily occur opportunistically and are usually consumer initiated. In May 2024 the Government announced a Roadmap to build evidence for a national targeted skin cancer screening program, which may reduce inequities and improve cost-effective, quality care.

Aim: This study aimed to gather nationally representative stakeholder opinions on the potential implementation of risk-tailored population melanoma screening.

Methods: From March to May 2024, an online questionnaire was completed by 46 policy experts, health professionals and researchers (“key informants”), 28 members of community and consumer advocate organisations (“consumers”) and 377 members of the general public (“community”).

Questionnaire items included satisfaction with current melanoma early detection, risk assessment approaches, risk-tailored recommendations, research priorities, and free text comments.

Quantitative items were analysed descriptively, and content analysis was used for open-ended items.

Results: Few participants (25% community, 7% consumers and 15% key informants) were satisfied with the current approach to melanoma early detection. Free text comments highlighted concerns about inequitable access to skin cancer early detection services and health professional workforce availability, particularly for regional and remote areas. Most community participants, consumers and key informants agreed with using an online questionnaire for the initial risk assessment (78%; 86%; 76% respectively), and with using total body photography as part of a screening examination (96%; 78%; 80% respectively). For people at lower-than-average risk of melanoma, participants mostly agreed (73%; 57%; 66% respectively) with offering less frequent screening, however, fewer agreed (12%, 25% and 44% respectively) with not offering routine screening to this group. Top priorities identified for future research included a screening trial and development of clinical guidelines.

Conclusion: These findings will guide implementation strategies for a potential future national targeted skin cancer screening program and will be highly relevant for policymakers.

Reducing stigma and its impacts in lung cancer screening

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2C - Psychosocial & ELSI, Wynyard & St. James, March 5, 2025, 11:00 AM - 12:30 PM

Background/Introduction:

Participation is critical to achieve the clinical and cost-effectiveness benefits of Australia's National Lung Cancer Screening (LCS) Program. Stigma associated with smoking is a barrier to screening engagement and also causes psychological harm (e.g., shame, distress). This project aimed to better understand potential stigma and its impacts prior to lung cancer diagnosis and develop a communication-based resource to support health professionals in LCS delivery.

Methods/Approach:

This project involved two phases: (1) semi-structured interviews with people eligible for LCS in Australia (consumers); and (2) co-design of a resource for health professionals to reduce stigma and improve communication in Australia's LCS program. The latter study involved workshops, focus groups, and interviews with consumers and experts (health professionals with expertise in screening, respiratory medicine and health promotion). Data will be analysed thematically.

Findings/Results:

Data collection and analysis is being finalised. Interviews (n=25) focused on previous experiences of stigma in healthcare, and potential manifestations and impacts of stigma in LCS (behavioural, psychological, social).

Co-design methods were guided by best-practice principles and approaches. Initial activities focused on discussion of stigma in healthcare, and effective approaches to reduce stigma used in other contexts (e.g., HIV, mental health). Following idea generation, a resource targeted at health professionals for use in LCS was iteratively developed via two consumer workshops, 7 focus groups and 15 interviews with experts, during August–October 2024.

Conclusion:

Many jurisdictions globally are in design or early implementation of LCS. This project contributes timely and critical evidence needed to reduce stigma and its impacts during LCS, including an implementable resource to support LCS delivery. Outcomes are expected to promote health professional's awareness of stigma and to implement communication practices to reduce psychosocial harm for LCS participants. This will support program delivery by reducing a key barrier to uptake.

A Systematic Review of Factors Impacting Late Diagnosis of Chronic Viral Hepatitis

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2D - Non-cancer and Emerging, Museum, March 5, 2025, 11:00 AM - 12:30 PM

Background: Late diagnosis of chronic hepatitis B and C is defined as occurring within two years of a diagnosis of hepatocellular carcinoma or decompensated cirrhosis. Timely diagnosis can greatly reduce the risk of these advanced liver diseases, through provision of treatment and care for hepatitis B and C. Despite recommendations from professional bodies internationally, late diagnosis of viral hepatitis continues to be a prevalent risk factor for liver-related mortality. The aim of this study was to synthesize published evidence regarding barriers and facilitators associated with late diagnosis of viral hepatitis.

Methods: We conducted a search of four biomedical databases from inception to June 2024. We included articles that explored factors associated with the late diagnosis of chronic viral hepatitis. Due to significant heterogeneity in key aspects across the studies, we conducted a narrative synthesis to summarise the identified barriers and facilitators.

Results: Twenty-two studies were eligible. Twelve studies focused specifically on hepatitis C, 5 on hepatitis B and 5 on both hepatitis B and C. Most studies were carried out in the USA. The proportion of late diagnosis ranged from 11% to 70% for studies on hepatitis C and 15% to 51% for studies on hepatitis B. Key barriers to hepatitis screening were older age, being male, history of alcohol misuse, hepatitis C/Diabetes mellitus comorbidity, and fewer physician visits. Conversely, facilitators included being female, history of injecting drug use, higher number of physician visits and hepatitis C/HIV co-infection.

Conclusions: Key barriers to early detection of viral hepatitis can be addressed through targeted strategies. For example, primary care-based screening for males and older individuals (irrespective of current risk factors), diabetic patients and those with a background of alcohol misuse are required.

Implications: Undiagnosed individuals should be a priority, with efforts focused on identifying and linking them to treatment and care programs

BARRIERS TO PARTICIPATING IN POPULATION GENOMIC SCREENING IN AUSTRALIA: DNA SCREEN SUB-STUDY OF TESTING DECLINERS AND DELAYERS

Paul Lacaze, Dr Jane Tiller, Amanda Willis, Mary-Anne Young

1B - Cardiovascular & Chronic Disease Screening, Town Hall, March 4, 2025, 1:30 PM - 3:00 PM

Background: Population genomic screening has the potential to improve disease prevention and early detection. However, realizing the benefits of genomic screening will require public trust and willingness to participate. Individuals who decline offers of population genomic screening provide unique perspectives on potential barriers to screening in a traditionally hard to reach cohort.

Methods: Individuals who registered for a population genomic screening study (DNA Screen) but declined testing (didn't respond when invited, didn't return their sample or withdrew) (n=6300) or delayed testing but ultimately proceeded (n=1017), were invited to share their reasons through an online survey.

Results: Overall, 1551 participants responded (21% response rate). Of 843 decliners who reported reasons, 54% (n=452) cited concerns about life insurance implications. Concerns about genetic privacy were next most common (31%; n=259) [multiple reasons could be selected]. Of 255 free-text responses regarding changes external to the study that would have assisted them to participate, 83% (n=212) mentioned protections against use of genetic results in insurance. Of 531 delayers who reported reasons, the most common were forgetfulness (41%; n=219) and lack of time (34%; n=178). Insurance concerns were reported by 21% (n=111) and privacy concerns by 11% (n=59).

Conclusion: Insurance discrimination concerns were reported as the primary barrier affecting participation in population genomic screening, by Australians who initially expressed interest but ultimately declined participation, followed by genetic privacy concerns. Other barriers included forgetfulness and lack of time. These findings help understand community concerns and potential barriers to the uptake of population genomic screening in Australia.

Screening for Type 1 Diabetes in Children is Feasible and Acceptable to Families: The Australian Type 1 Diabetes National Screening Pilot

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1B - Cardiovascular & Chronic Disease Screening, Town Hall, March 4, 2025, 1:30 PM - 3:00 PM

Aim: Population screening for type 1 diabetes (T1D; an autoimmune condition), in children can reduce life-threatening health outcomes at diagnosis and delay/prevent symptomatic onset. The Australian Type 1 Diabetes National Screening Pilot aimed to identify the optimal screening approach for paediatric T1D screening in Australia.

Methods: A non-randomised implementation study of three screening models: a polygenic risk-stratified model, followed by targeted autoantibody screening from ~1 year old, in newborns (Model 1) and in infants (6-12mo; Model 2), and population-wide autoantibody screening in 2, 6 or 10 year old children (Model 3). Parents completed online surveys at screening (pre) and at result notification (post).

Results: 6,701 children were registered for screening (M1: n=2,287, M2: n=2,159, M3: n=2,255 children). Of these, 94%, 85% and 82% were consented and 86%, 63% and 46% were screened, respectively. 325 children were identified as having an increased genetic chance of T1D (10%, M1-2) and 6 children were positive for ≥1 T1D antibodies (0.6%, M3). Uptake was highest when aligned with newborn screening (M1: 94%) or as an in-school screening option within M3 (2%), compared with mail-out, at-home sampling (M2-3: 10-15%). Parents felt they understood T1D (Understand 'Very well'/'Well'/'Average' Pre: 78%, Post: 88%). T1D risk-specific anxiety was low (mean: 33 ± 10 points, 75% 'low to no' anxiety (SAI: <40 points)) and similar between models (mean: 32-34 points, 70-77% no/low anxiety). Most parents were satisfied with screening ('Strongly Agree'/'Agree' M1: 93%, M2: 97%, M3: 97%) and believed population screening would be 'worthwhile' (Pre: 96%, Post: 95-98%), 'acceptable' (Pre: 94-97%, Post: 96-97%) and 'should be made available' (Pre: 96-97%, Post: 96-98%).

Conclusion: Population-wide screening for T1D in children appears feasible and acceptable to Australian families. Uptake is highest when screening is convenient and supported. The optimal model is not yet clear and further analyses, including cost-effectiveness, are required.

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