Melanoma Institute Australia

Roadmap Annual Collaborators Meeting

Roadmap for a National Targeted Melanoma Screening Program

27 March 2026

Morning session

1. Opening Remarks

Speaker: Professor Georgina Long, Director, Melanoma Institute Australia.

Professor Georgina Long formally opened the Roadmap Annual Collaborators Meeting, welcoming all workstream, committee members and stakeholders. Georgina emphasised the significance of the national effort to design a feasible, evidence-based, and equitable skin cancer screening program for Australia. She highlighted the country's uniquely high melanoma burden, the importance of collaboration across workstreams and stakeholders, and the need to progress from evidence review to decision-making. Key priorities outlined included alignment across committees, identifying evidence gaps, prioritising elements for health economic modelling, and maintaining momentum toward actionable recommendations for government.

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2. Program Overview and Roadmap Process

Speaker: Dr Lisa Melton, Roadmap Program Manager

Dr Lisa Melton provided an overview of the Roadmap's structure, governance, and timelines (which can also be found online here). She outlined the four workstreams (risk assessment and screening population; screening intervention and management pathways; data and registry; and health economics and modelling) and explained how evidence collation and new research feed into program design. She reinforced that all work is aligned with and aims to address Australia's Population-Based Screening Framework. Roadmap delivery milestones extend to a draft roadmap in early 2028 and a final submission in September 2028. Lisa also set expectations for engagement, feedback, and coordination across the day.

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3. Interim Evidence Synthesis: Melanoma Screening

Speaker: Professor Anne Cust, Roadmap Lead

Professor Anne Cust presented key data from the interim Evidence Synthesis Report that was prepared for Roadmap workstream and committee members. It outlines currently available evidence to support screening program feasibility and design and identifies strengths and limitations of the evidence to date, ongoing research and critical gaps. Anne highlighted Australia's globally high melanoma incidence, strong survival outcomes when melanoma is detected early, and ongoing inequities affecting Aboriginal and Torres Strait Islander peoples and those in rural, remote or disadvantaged areas.

Key findings addressed in the report included:

- Widespread opportunistic skin checks with inconsistent quality, access, and follow-up.

- Observational evidence showing earlier-stage detection with screening, but no definitive randomised trial evidence of mortality reduction. The Roadmap is addressing these evidence gaps through new data linkage projects, modelling, and long-term follow-up of a historical trial and cohort study.
- Significant concerns around overdiagnosis and downstream costs.
- Preliminary considerations are proposed from the current data for risk assessment, risk communication, the target population, invitation methods, screening interventions and diagnostic tools, technology advancements, screening intervals and workforce models, and will be further examined through the health economic modelling, ongoing evidence evaluation and stakeholder engagement.

Anne stressed that all recommendations in the report are preliminary, intended to inform modelling and workstream/committee discussions rather than final decisions.

4. National Melanoma Data and Burden Analysis

Speaker: Amy Young, Australian Institute of Health and Welfare (AIHW)

Amy Young presented national and unpublished AIHW data underpinning melanoma screening discussions. She reviewed incidence, mortality, survival, geographic variation, age patterns, and emerging equity analyses.

Key insights included:

- Melanoma is the third most common cancer by incidence but has relatively low mortality due to high survival rates.
- Incidence increases sharply after age 40 years, with mortality rates rising from 60+. The age group with the highest number of melanoma-related deaths is 80-84 year olds.
- Five-year survival exceeds 90%, reflecting major advances in early detection and treatment.
- There are distinct geographic patterns where incidence and survival do not always align.
- New analyses for First Nations people, including melanoma survival, will be published in May 2026.
- Evidence that targeting ages 40–74 years captures a large proportion of cases, burden, and costs relative to other screening programs.

Amy shared new findings from the AIHW on skin cancer mortality. Melanoma and non-melanoma skin cancer (NMSC) mortality is:

- almost twice as high amongst those living with severe or profound disability (AIHW believe this is driven by age – e.g. older people more likely to require assistance; further analyses are required to evaluate an independent effect).

- highest amongst those with an educational level of certificate III or IV, noting that many with this certification are employed in trades.
- highest amongst those in a farm manager or labourer role (of those who were employed on 2016 census night), however, a very large proportion of deaths were attributed to people who answered 'not applicable' to their occupation status. This likely reflects the fact that most people who died from melanoma were retired.
- Melanoma mortality was slightly lower in the 'remote and very remote' category than the 'outer regional' category, which may be due to a higher proportion of First Nations people living in these more remote areas.

Amy finished by outlining ongoing AIHW projects to improve national evidence. This includes common keratinocyte cancer incidence and mortality estimations; melanoma data commentary, including First Nations and Breslow thickness data; and a multiple primary melanoma data development project.

Question time

Clarifying the difference between mortality and survival

Survival and mortality measure different things. Survival is measured from the time of diagnosis, so any screening program will increase survival simply by diagnosing disease earlier, even if it has no impact on when people die. Mortality measures the number of deaths per population and is therefore a hard endpoint for assessing screening effectiveness. Survival is useful in clinical trials but is much harder to interpret in screening due to lead-time effects and uncertainty about melanoma's natural history.

Do we have data by country of birth or language spoken at home?

The AIHW recently published data on melanoma mortality by country of birth, ancestry, and language spoken at home – see here. AIHW has previously published melanoma incidence by country of birth – see here. However, melanoma incidence by more detailed population characteristics (such as ancestry or language spoken at home) requires linkage to Census data via the Person Level Integrated Data Asset (PLIDA). While this linkage is planned, results are not expected within the Roadmap timeframes. The Operations team has a state-level linkage underway between NSW Cancer Registry Data (CanDLe Project) and PLIDA to address some of these evidence gaps.

With flattening incidence in some age groups, should screening focus on non-melanoma skin cancer instead?

Although non-melanoma skin cancers impose a large burden, the evidence base for their natural history, outcomes, and early detection impact is much more limited. Melanoma remains the primary focus because the available data are substantially stronger, even though they are still imperfect.

Why do older age groups dominate melanoma mortality?

The age-specific melanoma mortality rates increase with increasing age, from 3.1 deaths per 100,000 people aged 60-64 to 54.7 deaths per 100,000 people aged 85-

89 in 2025. Deaths are uncommon in younger age groups and have been decreasing over the last 50 years. This reflects both disease progression over time and broader age-related incidence and mortality patterns. Screening programs rarely include the oldest age groups because the balance of benefits (such as life years saved) and harms (such as overdiagnosis) is typically unfavourable. However; for this Roadmap we will also need to consider other potential benefits apart from mortality reduction, such as cost offsets and morbidity reduction from reducing the need for immunotherapy.

Does screening meet population criteria for Aboriginal and Torres Strait Islander peoples?

There is currently insufficient evidence to answer this at a population level. Individual melanoma risk varies widely within Aboriginal and Torres Strait Islander communities, particularly by skin colour and other personal risk factors. Screening eligibility should not be determined solely by Indigenous status, but individual risk characteristics.

Why focus on age groups with high incidence rather than those with the highest deaths?

This highlights a core challenge for melanoma screening: most deaths occur in very old age, while much of the incidence occurs earlier. The data were presented to prompt discussion about what a screening program is trying to achieve and how success should be measured, given high survival and deaths concentrated late in life. The discussion throughout the day identified a need to look more carefully at the evidence of who dies from melanoma, and to consider other outcomes alongside mortality, such as equity, cost-effectiveness, treatment burden, quality of life, and productivity gains.

Why do people die from melanoma despite early diagnosis?

Some melanomas are biologically aggressive and spread early or respond poorly to treatment. Historical Queensland data show that many melanoma deaths arise from people initially diagnosed with thin melanomas, simply because this group is large. The majority of these deaths occur more than five years after diagnosis, sometimes over ten years later, complicating interpretation of survival outcomes[1],[2].

Please also see addendum 1 for responses to questions that were not answered live.

5. Roadmap recommendations so far, including a melanoma focus

Speaker: Professor David Whiteman, Chair, Roadmap Expert Advisory Committee

Professor David Whiteman explained the strategic decision to focus the Roadmap primarily on melanoma, rather than all skin cancers. This decision was supported by roadmap workstreams and advisory committees and accepted by government.

[1] Baade, P. D., Whiteman, D. C., Janda, M., Cust, A. E., Neale, R. E., Smithers, B. M., Green, A. C., Khosrotehrani, K., Mar, V., Soyer, H. P., & Aitken, J. F. (2020). Long-term deaths from melanoma according to tumor thickness at diagnosis. International Journal of Cancer, 147(5), 1391–1396. https://doi.org/10.1002/ijc.32930

[2] Whiteman, D. C., Baade, P. D., & Olsen, C. M. (2015). More People Die from Thin Melanomas (≤1 mm) than from Thick Melanomas (>4 mm) in Queensland, Australia. Journal of Investigative Dermatology, 135(4), 1190–1193. https://doi.org/10.1038/jid.2014.452

The rationale included:

- Melanoma accounts for the majority of skin cancer deaths.
- Its natural history and risk factors are well understood, including evidence for an early phase of the disease amenable to early intervention.
- Validated risk prediction tools exist, enabling targeted screening.
- A stronger evidence base exists compared with non-melanoma skin cancers.
- Available data demonstrate a clear opportunity to prevent advanced disease and mortality for melanoma, whilst minimising overdiagnosis and overtreatment.

David clarified that non-melanoma skin cancers will still be addressed through referral pathways and data capture but are not the primary screening target.

Additional preliminary Roadmap recommendations discussed were the inclusion of melanoma survivors in screening eligibility due to their increased risk of having further primary melanomas and providing individual risk assessment results to participants due to evidence showing some benefits (e.g. improved sun protection behaviour) and no evidence of harm.

Question time

Is there enough data to support a screening program for melanoma? Will we be able to deliver the death rate reduction we want?

Despite increasing incidence, melanoma mortality rates in Australia remain low and survival is high when compared with other cancers such as lung cancer. This demonstrates the success of current melanoma prevention, detection and treatment practices in the country.

With this in mind, demonstrating a mortality benefit from melanoma screening is likely to be extremely difficult, particularly due to major advances in treatment that confound the impact of earlier detection. There is currently no large-scale randomised population-level trial to definitively support screening, and depending on the outcomes of the Roadmap-funded 25-year follow-up of the QLD pilot screening trial using data linkage that is currently underway, mortality may no longer be a realistic primary endpoint.

Instead, the value of screening may lie in alternative outcomes such as cost savings, reduced future treatment burden, improving equity, preservation of quality of life, and reduced loss of working life, for which some evidence already exists.

While it is possible that existing approaches represent the best achievable outcome, there remains interest in exploring whether a more efficient and cost-effective model could deliver better results, particularly given that our Stakeholder research shows widespread dissatisfaction with the status quo of skin checks in Australia.

A key implication highlighted was the need to address existing “de facto” screening. Opportunistic screening - particularly among low-risk individuals - carries costs and downstream consequences for the health system, even when borne out-of-pocket. Achieving a cost-effective, organised screening program would almost certainly require de-intensification and disinvestment in opportunistic screening in low-risk

people. It was noted that in a setting with private screening, this will be difficult to do and incentives should be considered.

Role of Squamous Cell Carcinoma (SCC) in Screening Decisions

Squamous cell carcinoma causes an estimated 500–600 deaths annually in Australia and remains an important contributor to skin cancer mortality. While melanoma deaths are higher (approximately 1,200–1,500 per year), melanoma mortality is declining due to advances in treatment, whereas progress for SCC has been more limited. However, there is insufficient evidence to determine whether earlier detection of SCC would meaningfully reduce mortality, as it is unclear whether fatal SCCs are preventable through screening or driven by aggressive biology or challenging anatomical sites. This represents an important gap and an area for future research. In addition, deaths from non-melanoma skin cancer occur at older ages (on average) than for deaths from melanoma. The lack of national incidence and outcome data for squamous cell and basal cell carcinomas significantly limits the ability to design an evidence-based screening program, hence the recommendation (see above) that enhanced data collection on non-melanoma skin cancers should form part of any future melanoma screening program. Without these data, it is difficult to model benefits, harms, or cost-effectiveness. Participants noted that emerging AI-based approaches to extract information from pathology reports may offer a future pathway to national data collection, enabling more agile and adaptive screening programs over time.

AIHW recently published data on non-melanoma skin cancer mortality by population groups (see here) and will publish estimates of common non-melanoma skin cancer (Basal and Squamous Cell Carcinoma) incidence and mortality later in 2026.

How reliable is mortality as an endpoint for evaluating melanoma screening?

There are some limitations in cause-of-death reporting, particularly in older age groups with competing risks. While death certificate data lack the precision of clinical trial records, participants agreed that the overall signal remains clear: melanoma mortality is substantially higher in older age groups despite some uncertainty in attribution. These data limitations are unlikely to fully obscure the true burden of disease, but they do complicate evaluation.

Looking at fatal cases of melanoma and understanding their clinical histories and why they died

Research by the QSkin team is currently underway analysing fatal melanoma cases by working retrospectively through patients' clinical histories to understand when they were diagnosed, how their disease was initially characterised, and what treatment pathways they followed.

This work is complex and highly individualised. Ideally, we would have a population-scale clinical trial that could more clearly track outcomes over time.

The discussion emphasised that melanoma mortality cannot be understood solely through early detection paradigms; cancer biology plays a major role, and a substantial proportion of deaths are likely unavoidable through screening alone due to aggressive disease behaviour. While access to healthcare and diagnostic pathways are relevant, some melanomas will lead to death regardless of how early they are detected. A key challenge, therefore, is determining what proportion of melanoma deaths are truly preventable through screening.

6. Lessons from the National Lung Cancer Screening Program

Speaker: Professor Vivienne Milch**,** Medical Director and Head Clinical Policy Advice Branch, Cancer Australia; Deputy Chair, Roadmap Expert Advisory Committee

Professor Vivienne Milch shared lessons from the design and implementation of Australia's National Lung Cancer Screening Program and their relevance to melanoma screening. She outlined how the lung cancer screening program met population screening criteria through strong mortality reduction evidence from international RCTs, tight eligibility criteria, and structured screening and assessment pathways.

Key learnings for the melanoma roadmap included:

- The importance of clear evidence thresholds and agreed outcome measures. One of the important measures for melanoma screening is cost.
- Balancing benefits and harms through targeted eligibility to minimise overdiagnosis.
- Embedding equity from the outset, including mobile services and culturally appropriate delivery.
- Early and ongoing health professional engagement.
- Defining how incidental findings are managed outside the screening program.
- The need for ongoing research and program adaptability rather than "set-and-forget" design.

Question time

How does the proposed target population for melanoma screening compare with the tightly defined population eligible for lung cancer screening, and what are the implications for scale and service delivery?

The discussion noted that the lung cancer screening program uses very tight inclusion criteria, such as a minimum of 30 pack-years of smoking, resulting in a relatively small eligible population. Participants highlighted the importance of a similarly careful population definition in melanoma screening to avoid identifying an unmanageably large group requiring intervention, although it should be noted that 37% of adults aged 45–69 years already report having an annual whole-body skin check[3]. It was also noted that lung cancer screening faces challenges such as stigma, meaning some eligible individuals may not yet be participating. Ultimately, determining the optimal target population will depend on detailed modelling.

Are incidental findings included in the costings of the lung cancer screening program, and how are they managed?

Incidental findings are not included in the formal financial assessment of the lung cancer screening program; noting this is separate to cost-effectiveness analyses

[3] Reyes-Marcelino, G., Tabbakh, T., Espinoza, D., Sinclair, C., Kang, Y.-J., McLoughlin, K., Caruana, M., Fernández-Peñas, P., Guitera, P., Aitken, J. F., Canfell, K., Dobbinson, S., & Cust, A. E. (2021). Prevalence of skin examination behaviours among Australians over time. *Cancer Epidemiology*, *70*, 101874. https://doi.org/10.1016/j.canep.2020.101874

looking at value for money and noting also that incidental findings in lung cancer screening, such as heart problems, are different to the incidental findings expected in a melanoma screening program, such as non-melanoma skin cancers and dermatological conditions. When the lung cancer screening program was designed, it was recognised that including the costs of managing incidental findings would make the program financially unviable. Instead, all low-dose CT (LDCT) scans are reported using standardised radiology wording, and information about incidental findings is returned to the individual's general practitioner. Management of these findings then occurs within usual care processes, outside the screening program. This differs from approaches used in some international programs, such as the UK, where incidental findings are actively managed within the screening program. In the Australian program, the screening pathway is defined as ending at completion of the LDCT scan, with follow-up delegated to primary care.

7. Consumer and Community Advisory Committee Perspectives

Speaker: Craig Lawn, Chair, Consumer and Community Advisory Committee

Craig framed the Roadmap as a generational opportunity to transform melanoma outcomes in Australia. Speaking as a melanoma survivor, he underscored that consumer trust, communication, and real-world usability are critical determinants of success, and that a potential screening program must feel simple to navigate, supportive, and meaningful to participants.

He highlighted that consumer input is embedded into the roadmap, with the Consumer and Community Advisory Committee actively shaping recommendations across workstreams through a consistent set of values: equity, acceptability, sustainability, and practical impact. This values-based approach has been used to inform complex roadmap decisions, including eligibility for people with prior melanoma and the decision to focus the program on melanoma rather than all skin cancers (while ensuring appropriate pathways for incidental findings).

Craig emphasised the importance of human-centred design, ensuring the screening pathway works for people rather than systems, and encouraged viewing screening as part of a broader ecosystem encompassing prevention, risk assessment, clinical care, and ongoing surveillance. He acknowledged that system change will inevitably create "winners and losers," and stressed the need to proactively seek solutions with stakeholder input.

Consumer and Community Advisory Committee member Carolyn Morrison, also a melanoma survivor, shared her personal story of how participating in the lung cancer screening program led to an early diagnosis of lung cancer, reinforcing the value of screening beyond abstract metrics such as mortality alone. Craig concluded by affirming that the consumer committee feels valued, heard, and influential, and that continued co-design will be essential to achieving an equitable, acceptable, and effective national targeted melanoma screening program.

8. Workstream/Committee Chairs Panel Discussion: Key Recommendations and Evidence Gaps

Professor David Whiteman chaired a structured panel discussion bringing together workstream and consumer leaders to reflect on priorities, emerging recommendations, and critical evidence gaps.

Panel members:

- Professor Monica Janda (Deputy Chair, Workstream 1 – Screening population & risk assessment)
- A/Prof Adriene Lee (Chair, Workstream 2 – Screening intervention & management pathways)
- Sally Rayner (Deputy Chair, Workstream 3 – Data collection, linkage and registry)
- Professor Louisa Collins (Chair, Workstream 4 – Modelling & health economics)
- Craig Lawn (Chair, Consumer and Community Advisory Committee)

Emerging Recommendations by Workstream:

- **Workstream 1 (Risk assessment):** Existing melanoma risk tools perform well, but further work is needed to refine thresholds, validate tools in diverse populations, and explore combining self-report tools with more objective inputs (e.g. imaging, AI-assisted assessments).
- **Workstream 2 (Screening & pathways):** Likely core intervention will involve total-body skin assessment supported by dermoscopy, delivered through a tiered workforce model starting in primary care. Low-tech options remain viable, particularly for equity and rural delivery.
- **Workstream 3 (Data & registries):** The 40–74 age group is a strong starting point for modelling, capturing a similar disease burden compared with other national screening programs. New projects are underway to systematically identify data sources on current skin-check practices and analyse non-melanoma skin cancer incidence and mortality.
- **Workstream 4 (Modelling):** Priority focus is on reducing inefficiencies and overservicing, with strong emphasis on equity and identifying populations most likely to benefit. Modelling will integrate costs, harms, quality of life, and system impacts rather than mortality alone.

Key Evidence Gaps Identified:

- Validation and calibration of risk assessment tools across diverse populations.
- Limited national data on opportunistic skin checks and non-melanoma skin cancers – whilst this may be sufficient for modelling, contemporary data would be useful; this may be assisted by the scoping review underway within Workstream 3 and the planned cancer registry study for people with a previous melanoma diagnosis.

- Understanding diagnostic accuracy of screening interventions and the interplay of Artificial Intelligence (AI) (work is currently underway to look at these issues).
- Workforce capacity, training needs, and feasibility across urban, rural, and remote settings.
- Understanding the risks and outcomes for priority groups such as outdoor workers.

Cross-cutting Discussion Themes:

- Modelling outputs should be interpreted as structured syntheses of evidence rather than definitive proof or evidence itself.
- The challenge of relying on mortality alone as a primary endpoint given high melanoma survival and evolving treatments; thus likely that multiple outcomes will be assessed, such as morbidity, quality of life, downstream treatment burden, and cost offsets.
- The tension between population-based screening criteria and the ambitions of a targeted, adaptive screening approach.
- Practical and workforce considerations such as GP capacity, training and education, Medicare item numbers, medico-legal risk, and provider incentives.

David closed the session by reiterating the scale and complexity of the task, thanking all contributors, and emphasising that unresolved questions and dissenting views are an essential part of building a credible, evidence-based roadmap.

Question time

Do we have sufficient data to understand melanoma risk and outcomes among outdoor workers in Australia?

Some data are available, including recent work examining skin cancer mortality in priority populations, which includes outdoor workers (see here). However, significant limitations remain. Identifying outdoor workers using census occupation and industry codes is difficult, and while mortality data can be examined, the number of deaths is small, limiting disaggregation and public reporting. National cancer incidence data are not currently linked to census data, preventing detailed analysis of melanoma incidence and outcomes by occupation, representing an evidence gap. Future linkage of incidence and census data may allow more detailed analysis, but this will take time. An analysis is planned by the Operations team using the NSW CanDLe data set (routinely collected health information and NSW Cancer Register data) linked to PLIDA (Person Level Integrated Dataset). This will allow analysis of the characteristics of different sub-populations who are diagnosed with advanced melanoma or die from melanoma. Additional work is also underway using QSkin data, which will be ready soon.

Is there scope to identify skin checks through Medicare data, by introducing a specific item number?

The introduction of a Medicare item number for skin checks has been discussed previously and remains controversial. Without an item number, it is difficult to accurately capture data on skin checks, as they are typically embedded within general consultations

and self-reporting is unreliable. However, introducing an item number raises concerns about increased costs, provider willingness, and potential unintended incentives. Some participants suggested that if a structured screening program were implemented, a separate item number for skin checks may not be necessary. Others noted that if no formal program proceeds, alternative mechanisms may be needed to achieve similar data and policy objectives.

What practical challenges do primary care clinicians (GPs or primary care nurses) face in delivering skin checks?

General practitioners highlighted substantial practical, financial, and medicolegal challenges. Typical consultations are increasingly complex, with multiple conditions addressed within a single visit and limited rebate growth. Skin checks add time, clinical responsibility, and medicolegal risk, particularly related to delayed diagnosis and biopsy complications. Becoming competent in skin cancer diagnosis requires significant personal investment, including training and equipment such as dermatoscopes. These factors must be carefully considered when designing any screening pathway that relies heavily on primary care.

How will morbidity, quality of life, and patient experience be incorporated into screening program modelling?

Morbidity and quality-of-life impacts will be explicitly included in the modelling. While results are often summarised using aggregated metrics, such as quality-adjusted life years (QALYs), these measures incorporate how individuals experience treatment, recovery, and longer-term impacts on wellbeing. The modelling will use a range of approaches to capture these elements and aims to transparently communicate how human and quality-of-life considerations influence outcomes, alongside costs and mortality.

Afternoon session

Concurrent stream 1: Shortlisted pathways for modelling discussion

In a closed session for Roadmap Workstream and Committee members, the Shortlisted pathways for a screening program were discussed with a focus on how the modelling teams (Workstream 4) will be developing the models and analysing the potential pathways. The scene was set by Professor Karen Canfell with a discussion of modelling principles and how screening trade-offs can be examined to arrive at a recommendation for a screening program that lands in an acceptable position in terms of costs, benefits and potential harms. Professor Louisa Collins talked through the shortlisted melanoma screening pathways. These were arrived at through detailed consultation with the Roadmap Workstreams and the evidence available to date. The interactive discussion and polling questions that followed will help the modelling teams to refine the initial inputs to the models. Once these core pathways are built and modelled, emerging evidence and screening element options can be incorporated to model various different screening scenarios.

Concurrent stream 2: Key Stakeholder consultation

Facilitators: Dr Kate Dunlop (Roadmap Stakeholder Engagement Manager), Dr Candice Donnelly, Dr Amelia Smit and Dr Jolyn Hersch

Stakeholders who accepted the invitation to attend the meeting in-person were invited to attend a consultation to explore key stakeholder perspectives on the potential melanoma screening pathways in a concurrent afternoon session. The aim was to identify acceptability of potential screening pathways, and barriers and enablers to implementation. The 18 stakeholders were divided into two smaller groups and participated in the facilitated focus group discussions.

Preliminary themes from the discussion included **eligibility and equity** such as concerns about access for rural and remote communities, cost of travel/treatment, and health literacy; **primary prevention** and the importance of its inclusion in the program; **implementation factors** related to workforce considerations, particularly availability in rural and remote areas, health professional education/training and key messaging about what to expect; and **data gaps** such as the number of people that would be eligible for screening. Stakeholders also emphasised the importance of patient related outcome measures in addition to the cost-effectiveness modelling methods that were presented in the morning session.

Findings from the consultation will inform further development of the proposed melanoma screening pathways.

LIST OF ATTENDEES

Total (online & in-person): 105

OPERATIONS TEAM

Dr Rehana Abdus Salam
Dr Yagiz Aksoy
Shannon Baker
Dr Candice Donnelly
Dr Kate Dunlop
Aidan Hayman
Dr Jolyn Hersch
Janet McKeown
Dr Lisa Melton
Emily Robertson
Dr Essa Tawfiq

WORKSTREAM AND COMMITTEE MEMBERS*

Hayley Andersen
Dr Anthony Azzi
Prof Kay Brumpton
Alison Button-Sloan
Gabrielle Byars
A/Prof Tony Caccetta
Prof Karen Canfell
John Cannings
A/Prof Michael Caruana
Prof Louisa Collins
Danica Cossio
Prof Anne Cust
Carolyn Der Vartanian
Clinical A/Prof Mary-Ann El Sharouni
Salma Fahridin
Dr Peter Ferguson
Rod Flude
Anne Gately
Louise Gates
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Prof Dorota Gertig
Dr Solange Green
Prof Pascale Guitera
A/Prof Jeremy Hudson
Prof Monika Janda
Maira Kentwell
A/Prof Duncan Lambie
Craig Lawn
A/Prof Adriene Lee
Prof Serigne Lo
Prof Georgina Long
Sonia Mailer
Dr Elizabeth Marles
A/Prof Linda Martin
A/Prof Aideen McInerney-Leo
Prof Vivienne Milch
Joanne Molsher
Carolyn Morrison
Nicholas Mosenthal
Prof Rachel Neale
A/Prof Nhung Nghiem
A/Prof Carolyn Nickson
A/Prof Catherine Olsen
Sophie Ottaviano
Grace Passfield
Prof Sallie Pearson
Dr Clare Primiero
Nidia Raya Martinez
Sally Rayner
Dr Jackie Roseleur
Dr Aminath Shausan
Dr Amelia Smit
Prof Andrew Spillane
Julie Teraci
David Thiele
A/Prof Alexander van Akkooi
A/Prof Kylie Vuong
Dr Caroline Watts
A/Prof Marianne Weber
Prof David Whiteman
Amy Young

STAKEHOLDERS

Shannon Anderson, Melanoma Patients Australia
Michelle Aquilina, MoleMap
Victoria Beedle, Skin Cancer College Australasia
Annie Bygrave, The Australasian College of Dermatologists
Tamara Dawson, Melanoma & Skin Cancer Advocacy Network (MSCAN)
Leanne Drury, National Rural Health Alliance
Emma Glassenbury, SunSmart Cancer Council Victoria
Dr Wayne Harvey, Australian Melanoma Research Foundation
Pegah Kamali, MetaOptima/DermEngine
Chris Kane, Australian Diagnostic Imaging Association
Elizabeth King, Cancer Council NSW
Carlo Krikowa, Australian Multicultural Health Collaborative
Grace Kwaan, ACEMID
Alicia Machalias, Australasian College of Dermatologists
Monique Mackrill, The Pharmacy Guild of Australia
Scott Maggs, Skin Check Champions
Irene Monro, Danger Sun Overhead
Adj/Prof John Orchard, Cricket Australia
Colleen O'Rourke, Cancer Institute NSW
Mary-Anne Quilter, CheckUP Australia
Tarlia Rajeswaran, FNQH Pathology
Pamela Scarborough, Cancer Institute NSW
Mark Sheehan, SunDoctors
Dr Gun Soin, Sonic Healthcare Australia Clinical Services
Claudia Tolhurst, Hunter Melanoma Foundation, AMSCA
Dr Philip Tong, Derm Screen
Prof Megan Varlow, Cancer Institute NSW
Yvette Walker XP Support Group
Caroline Zoers, The Australasian College of Dermatologists

DEPARTMENT OF HEALTH, DISABILITY AND AGEING

Rebecca Harding
Ariane Hermann
Maria Nanan
Louise Pooladvand

* For a full list of Roadmap members and their workstream/committee positions and affiliations, see here.

Addendum 1: Unanswered questions from the ACM

This section captures questions submitted via AHA Slides during the Annual Collaborators Meeting that we were unable to address on the day due to time constraints. Responses have since been provided to ensure all submitted questions are acknowledged and answered.

PRIORITY POPULATIONS

The Cancer Atlas of Australia's Heatmap of Incidence and Mortality currently shows 'regions' – has AIHW drilled down into precise towns/communities for incidence & mortality - and have you overlaid this with 'access to services', creating a publicly available detailed dataset of the most at risk towns/communities who lack access to services?

- Louisa Collins and team have conducted an analysis of the supply of skin-cancer-focused general practitioners (GPs) and dermatologists in Australia, and the demand for skin cancer services nationwide. This work is being prepared for publication and will be available soon. They have mapped this to the level of SA4 geographical regions - SA4s are the largest sub-state regions in the Main Structure of the Australian Statistical Geography Standard. These typically include a population of 100,000 or more to allow effective statistical analysis.
- Data cancer incidence and mortality by SA2 will soon be published in the Cancer Data in Australia report (May 2026).
- Work is planned for more detailed modelling of the geographic location of services and associated workforce that will help inform the feasibility of an accessible, equitable national program.

If we won't have the CALD data for 1-2 years, how will we account for this in the modelling?

We assume this question is referring to the PLIDA data for linkage with national melanoma incidence data. AIHW has produced mortality data for CALD populations, however further data on priority populations, including CALD, will become progressively available from AIHW over the next 12-18 months. In the interim, the Operations team has submitted an application for PLIDA linkage to the NSW Cancer Registry (via the CanDLe project); we expect to have access to these data in Q3 2026 and will prioritise analysis of priority populations. This will allow time for incorporation into the final modelling, but as data becomes available in the interim, they will be iteratively incorporated into the modelling. Various other data sources and analysis approaches are also being pursued that will be feasible to complete within the Roadmap timeframe to ensure we can appropriately account for and address the needs of priority populations in the recommendations we make to government.

How do we mitigate risk of diverting attention and resources from other prevention and screening programs that are likely to have much greater impact on health and well-being? For example, the overall low incidence of melanoma in First Nations

people compared to the burden of other diseases. How do we determine and measure equity?

This is an important question and one we will explore further through stakeholder engagement and analysis of data for priority populations to ensure individuals who are at high risk of melanoma in any community can access screening without diverting resources and attention away from other higher-impact health issues in those communities. We note that individual risk of melanoma will differ considerably among Aboriginal and Torres Strait Islander peoples, depending on their personal risk factors. The Cancer Institute NSW recently produced data on Cancer in Aboriginal people in NSW, showing that melanoma is the fifth most common cancer among Aboriginal people.

WORKFORCE

What consideration is being given to workforce and ensuring rural and remote communities have access to GPs with both the skills and confidence to assess, diagnose, treat skin cancer?

- A final decision on the screening intervention to be recommended in the Roadmap is still pending while we await further evidence on screening modalities such as total body photography and teledermatology. To some extent this will determine the workforce needed to deliver the intervention in all locations.
- In the meantime, we will be looking broadly at the workforce options (including melanographers, nurses, GPs, other community health professionals), the geographic location of services and the competency levels and standards required (e.g. for dermoscopy, total body photography, dermoscopic imaging) to examine the feasibility of delivering a consistently high-quality, accessible program. Regardless of the type of health professional that delivers the screening intervention (and it could be different types in different locations) it is most likely that that we will be recommending that they should all meet a single specified minimum competency standard. This is because the evidence indicates, particularly for dermoscopy, that this is a critical factor for the accuracy, sensitivity and specificity of screening.
- The Evidence Synthesis Report prepared for Roadmap members suggests that a tiered workforce model may provide a sustainable solution (e.g. Tier 1 primary care performs screening → Tier 2 teledermatology for assessment of lesions of concern → Tier 3 specialist conducts assessment for harder to diagnose cases) and that minimum competency standards and mandatory refresher training would be critical. The feasibility and acceptability of this approach will be further explored through stakeholder engagement and modelling.

How are the existing challenges in accessing primary care going to be addressed in the Roadmap?

- RACGP data (*General Practice Health of the Nation 2025 Report*) suggests that 99% of people could see a GP when they needed to. On the other hand, recent data from the Consumers Health Forum (CHF) show 50% of the population don't see a health professional or fill a script even if advised to and this is mainly due to cost (See CHF report here). The broader Australian GP workforce is also under strain. The Department of Health and Aged Care *2021-2031 National Medical Workforce Strategy* identified declining clinical hours among early-career GPs,

with work-life balance cited as a primary driver. A study by Bentley et al, 2022, found reduced weekly clinical hours among recent GP graduates compared with preceding cohorts.

- The Roadmap recommendations will therefore need to focus on minimising additional pressures on primary care, whilst optimising standards, consistency and accuracy. This might include, for example, the risk assessment being delivered online (with the option for primary care health professionals to assist individuals with this where they have limited online access or health literacy), and a tiered workforce model as described above in which dedicated health professionals perform screening with teledermatology support. Further stakeholder engagement and modelling will examine this question in more detail over the next 12 months.

RISK ASSESSMENT/ELIGIBILITY

Obviously the sensitivity and specificity of the tools depends on the risk threshold applied. For the modelling how are these being prioritised?
For the risk assessment tools, the modelling teams will model different risk threshold cut-points to see how this impacts the number of people eligible, the balance of benefits and harms, cost-effectiveness and resources required.

Given that current melanoma risk calculators demonstrate only modest discrimination (AUC ~0.7), how confident can we be that these tools meaningfully improve clinical decision-making beyond existing clinical judgement, particularly when applied in real-world populations with low baseline melanoma risk?

Evidence shows there is variability in how GPs identify melanoma risk factors, estimate risk, and deliver patient education[4]. A study in QSkin showed that a risk prediction model performed considerably better than self-perceived risk at predicting who would develop a melanoma[5]. Evidence presented in the Evidence Synthesis Report prepared for Roadmap members suggests that risk assessment tools present a viable option for the population entry point to a targeted screening program. The discrimination of existing Australian melanoma risk tools (AUC ~0.7) is less than for lung cancer screening but generally better than or equal to risk prediction tools for other cancers. We acknowledge there are limitations of existing risk tools such as omission of some risk factors (e.g. immunosuppression or the strength of family history) and that clinical judgement is always important. However, use of a risk calculator could provide a more consistent and equitable approach to determining eligibility that could avoid variability in clinical experience and reduce pressure on clinicians' time. Ongoing prospective evaluation and improvement of risk tools would be recommended in the roll-out of any screening program. For example, risk tools could be improved by incorporating genomic risk information or image-based markers of risk; this research is ongoing.

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[4] Anandasivam, B., Tam, M., McGeechan, K., Price, K., Mclean, K., Tracy, M., Hall, J., Knight, A., & Vuong, K. (2022). Melanoma risk assessment and management: a qualitative study among Australian general practitioners. *British Journal of General Practice*, BJGP.2021.0668. https://doi.org/10.3399/bjgp.2021.0668

[5] Olsen, C. M., Pandeya, N., Thompson, B. S., Dusingize, J. C., Webb, P. M., Green, A. C., Neale, R. E., & Whiteman, D. C. (2018). Risk Stratification for Melanoma: Models Derived and Validated in a Purpose-Designed Prospective Cohort. *JNCI: Journal of the National Cancer Institute*, *110*(10), 1075–1083. https://doi.org/10.1093/jnci/djy023

What mechanisms are in place to control and ensure the accuracy of participant responses within the Risk Assessment, and how does this affect our targeting data

Evidence presented in the Evidence Synthesis Report prepared for Roadmap members suggests that the items that make up the risk assessment calculators have high reproducibility. But they are definitely not perfect. We will use the findings from our ongoing studies and planned targeted research to identify ways to improve the accuracy of participant responses. Potential examples include using a chat-bot to assist with the risk assessment process, showing photos as examples e.g. of hair and skin colour, and using the first screening visit for those that meet the eligibility threshold as an opportunity for a health professional to check responses and confirm eligibility. Linking the risk assessment tool to GP portals will also provide an opportunity for opportunistic review of eligibility supported by the primary care provider for those who may be eligible but have not completed the assessment correctly. Self-completed risk tools could also be supplemented by incorporating (more objective) genomic risk information or image-based markers of risk; this research is ongoing.

Regarding the lung cancer screening experience; how much creep has happened from eligibility criteria, given smoking amount is self-reported? Similarly, are the risk tools for identification of high risk for melanoma dependant on self-reported factors? And is creep in screening numbers expected?

Regarding the risk tools for eligibility for melanoma, please see the question and response above including possible strategies for checking and monitoring eligibility of participants.

The lung cancer risk assessment is completed with a health professional. The National Cancer Screening Register does not collect the reported smoking pack-years, just whether the participant is eligible: yes/no. It is not possible to know how prevalent eligibility creep is at this stage. The National Lung Cancer Screening Program materials explicitly support an inclusive approach to estimating smoking history, particularly where precise pack-year calculation is difficult, and companion guidance for GPs and Aboriginal Controlled Community Health Organisations (ACCHOs) clearly encourages inclusiveness rather than exclusion when smoking history is uncertain.

Using the lung cancer screening program as an example, which may require more specific 'hardware' for screening, - for bringing clinics to the people - how do we strike the right balance between pre-deployment targeting and on-site risk calculations to ensure the screening program reaches the most relevant participants?

Modelling and stakeholder engagement are the main strategies that we will use to help strike the right balance in this regard.

PRIMARY PREVENTION

Given most deaths are in 85+ should we not run a screening program at all and spend all of our available resources on primary prevention?

The Government is not considering one versus the other. Primary prevention would ideally be an integral part of the risk assessment process, as evidence shows it can be a cost saving measure. The Roadmap will deliver evidence on likely cost-effectiveness of a potential targeted screening program and the Government will make policy decisions on the basis of that evidence.

COSTS

Do you have data on the cost of each aspect of the patient pathway? And the cost/benefit of early intervention?

Not yet, Workstream 4 (Health Economics and Modelling) will be working on this over the next 12 to 18 months.

EMERGING EVIDENCE

How will the timing of the data from the results of the follow up on the Melanoma Screening Trial fit with Louisa's modelling?

The results from the 25-year data-linkage follow-up of the pilot Melanoma Screening Trial are expected to be available to feed into the modelling by the end of 2026. Cost-effectiveness modelling will continue into 2027. Additional data can be incorporated, and scenario modelling can continue into the third quarter of 2027.

What evidence for NMSC will be gathered over the next 12 months

AIHW are working on keratinocyte cancer (basal cell carcinomas and squamous cell carcinomas) incidence and mortality estimates – results are expected to be provided to Roadmap members by mid-2026.