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TEN to MEN
The Australian Longitudinal Study on Male Health

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Intimate partner relationship breakdown and the risk of suicidal thoughts and behaviours in men

Supplementary materials to Snapshot series #5 | June 2026

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Measures

In this research, data from all main waves (1–5) of the *Ten to Men* study were used. *Ten to Men* is a national longitudinal cohort study designed to examine men's health, wellbeing and social determinants across the life course in Australia (Pirkis et al., 2016; Pirkis et al., 2017a; Volpe et al., 2025). In *Ten to Men*, Wave 1 data were collected from October 2013 to July 2014, Wave 2 data from November 2015 to May 2016, Wave 3 data from July 2020 to February 2021, Wave 4 data from August to December 2022, top-up data from September 2023 to March 2025,[1] and Wave 5 data from August 2024 to March 2025. Our analyses included men aged 15+ at Wave 1 (young men and adults). The following section includes details of the specific measures used in this research. Further information on the study design, questionnaires, statistical considerations, data files and other data resources is available via the *Ten to Men* Data User Guide, on the *Ten to Men* website, and in the *Ten to Men* Data Books.

Outcome measures

Suicidal thoughts in the past 2 weeks

In all of Waves 1–5, suicidal thoughts in the past 2 weeks were measured using one of the items from the Patient Health Questionnaire (PHQ)-9 (Kroenke et al., 2001). Men were asked 'Over the past 2 weeks, how often have you been bothered by thoughts that you would be better off dead, or of hurting yourself in some way?' Participants could select one of 4 response options: 0 for 'not at all', 1 for 'several days', 2 for 'more than half the days' and 3 for 'nearly every day'.

In Wave 5, First Nations men were asked a culturally adapted variation of this question from the adapted Patient Health Questionnaire (aPHQ-9) (Hackett et al., 2019). They were asked 'In the last 2 weeks, how often have you been thinking about hurting yourself or killing yourself?' First Nations respondents could select one of 4 response options: 0 for 'none', 1 for 'a little bit', 2 for 'most of the time' and 3 for 'all of the time'.

We then created a binary measure of suicidal thoughts in the past 2 weeks, with categories of 'yes' for responses 1–3 and 'no' for a response of 'not at all' or 'none' (for First Nations men). While we acknowledge that questions for non-Indigenous and First Nations men differed slightly, this approach was still able to distinguish between men who did and did not have suicidal thoughts in the past 2 weeks.

Suicidal thoughts in the past 12 months

In Wave 2, respondents were asked to indicate either 'Yes' or 'No' to the question 'Have you seriously thought about killing yourself in the past 12 months?' This information was used to create a binary variable for suicidal thoughts in the past 12 months. In Waves 3–5, respondents were asked to indicate either 'Yes' or 'No' to the questions (1) 'Have you seriously considered attempting suicide ever in your life?' and (2) 'Have you seriously considered attempting suicide in the past 12 months?' Respondents were only asked the second question if they answered 'yes' to the first one.

Using responses to these 2 questions, binary variables were created. These variables were coded as 0 for 'No suicidal thoughts in the past 12 months' for those who responded 'no' to either question and 1 for 'Suicidal thoughts in the past 12 months' for those who responded 'yes' to the question relating to the past 12 months, separately for each of the 3 waves. If respondents were not comfortable answering questions about suicide, they were provided the option to skip forward in the survey.

Suicidal plans in the past 12 months

In Wave 2, respondents were asked to indicate either 'Yes' or 'No' to the question 'Have you made a plan about how you would kill yourself in the past 12 months?' This information was used to create a binary variable for suicidal plans in the past 12 months. In Waves 3–5, respondents were asked to indicate either 'Yes' or 'No' to the questions (1) 'Have you ever in your life made a plan about how you would attempt suicide?' and (2) 'During the past 12 months, have you made a plan about how you would attempt suicide?' Men were only asked the question relating to the past 12 months if they answered 'yes' to the first one. Additionally, in Wave 5, respondents were only asked the question relating to lifetime suicidal plans if they answered 'yes' to the question asking about lifetime suicidal thoughts.

1 In 2023–2025, 10,000 Australian men within the existing age range of men in the study at the time were recruited to join *Ten to Men*. This group is known as the top-up sample. These men were recruited to ensure a sufficient sample size for statistical analyses, and to ensure that the study continued to represent Australian males born 1956–2003 (i.e. aged between 10 and 57 years old at Wave 1). The sample top-up included a particular focus on recruiting participants from priority population groups as outlined in the National Men's Health Strategy 2020–2030 (Department of Health, 2019).

Using responses to these 2 questions on suicidal plans, binary variables were created. These variables were coded as 0 for 'No suicidal plans in the past 12 months' for those who responded 'no' to either question on suicidal plans (or no to ever having suicidal thoughts in Wave 5) and 1 for 'Suicidal plans in the past 12 months' for those who responded 'yes' to the question relating to the past 12 months, separately for each of the 3 waves.

Suicide attempts in the past 12 months

In Wave 2, respondents were asked to indicate either 'Yes' or 'No' to the question 'Have you tried to kill yourself in the past 12 months?' This information was used to create a binary variable for suicide attempts in the past 12 months. In Waves 3–5, respondents were asked the following questions on suicide attempts: (1) 'How many times did you actually attempt suicide ever in your life?' and (2) 'How many times did you actually attempt suicide in the past 12 months?' Response options for both questions were 0 for '0 times', 1 for '1 time', 2 for '2 or 3 times', 3 for '4 or 5 times' and 4 for '6 or more times'. Males were only asked the question relating to the past 12 months if they responded that they had attempted suicide at least once in their life (response options: 1–4). Additionally, in Wave 5, males were only asked the question relating to lifetime suicide attempts if they answered 'yes' to the question about lifetime suicidal thoughts.

Using responses to these 2 questions, binary variables were created. These variables were coded 0 for 'No suicide attempts in the past 12 months' for those who responded '0 times' to either question on suicide attempts (or 'no' to ever having suicidal thoughts in Wave 5) and 1 for 'Suicide attempts in the past 12 months' for those who responded that they had attempted suicide at least once in the past 12 months (response options 1–4), separately for each of the 3 waves.

Key exposure

Relationship breakdown

In each of the Waves 1–5, men aged 18+ were asked to indicate either 'Yes' or 'No' to whether they had experienced any of a number of stressful life events in the past 12 months. One of these events was 'Breakdown of serious relationship/divorce/separation'. Young men aged 15–17 were asked a similar question in Waves 1–2 but the wording used was 'You split up with a girlfriend/boyfriend'. Platonic and family relationships are not in scope.

For each wave separately, we created a binary variable for all respondents coded as 0 for men who did not experience relationship breakdown and 1 for those who did.

Personal characteristics

Age

Age (in years) was measured as a continuous covariate or continuous moderator at Waves 3–5 for the analyses.

Age at first relationship breakdown

We created a continuous variable for age at first relationship breakdown in each of Waves 4 and 5. This variable was the same as a man's age in a particular wave if they reported no relationship breakdown in any wave. If they experienced one or more relationship breakdowns, then their age was taken at the time of their first breakdown.

LGBTQA+ status

For Waves 3, 4 and 5, an indicator of LGBTQA+ status was generated using a combination of measures, one which asked about sexuality and one which asked about current gender identity. This indicator could differ between waves. In Wave 3, respondents were asked 'Do you think of yourself as:', with response options of 1 = Heterosexual; 2 = Bisexual; 3 = Homosexual and 5 = Other (specify). They were also asked 'What is your current gender identity?', with response options of 1 = Male; 2 = Female; 3 = Transgender, male to female; 4 = Transgender, female to male; 5 = Genderqueer/Gender non-conforming and 6 = Other identity (specify).

In Waves 4 and 5, respondents were asked 'How do you describe your sexual orientation?', with response options of 1 = Straight (Heterosexual); 2 = Bisexual; 3 = Gay or lesbian; 4 = Asexual; 5 = I use a different term; 6 = Pansexual and 7 = Queer. The other measure asked about current gender identity, using the question 'How do you describe your gender?', with response options including 1 = Man or male; 2 = Woman or female; 3 (Wave 4) or 7 (Wave 5) = Non-binary and 4 (Wave 4) or 6 (Wave 5) = I use a different term (please specify).

People who identified their sexuality as heterosexual and who identified as males were coded as '1 = Male-identifying heterosexual'. Those who provided any other response options to the questions on sexuality and/or gender identity were coded as '0 = Not male-identifying and/or non-heterosexual'.

For Wave 5, we also considered prevalences separately for bisexual and gay or lesbian respondents, given that sample sizes allowed.

Indigenous status

In Waves 3, 4 and 5, men were asked the question 'Do you identify as Aboriginal, Torres Strait Islander or both?', with response options of 1 = No, 2 = Aboriginal only, 3 = Torres Strait Islander only and 4 = Both. This measure was common across waves. For our analyses, we created a binary variable of 0 = 'Non-Indigenous' for a response option of 1 = No, and 1 = 'Aboriginal and/or Torres Strait Islander' for response options 2–4.

Main language spoken at home

In Waves 4 and 5, men were asked 'What language do you mainly speak at home?', with some response options being 1201 = English, 7104 = Mandarin, 7101 = Cantonese, 5203 = Hindi, 5206 = Nepali, 2303 = Spanish and 6302 = Vietnamese. This measure was common across waves. For our analyses, we created a binary variable of 0 = 'English' for a response option of 1201 and 1 = 'Other than English' for all other response options.

Country of birth

In Waves 4 and 5, men were asked 'In which country were you born', with some response options being 1101 = Australia, 7103 = India, 1201 = New Zealand, 2102 = England, 5204 = Philippines and 6101 = China. This measure was common across waves. For our analyses, we created a binary variable of 0 = 'English-speaking country' for the following response options: 1101 = Australia, 1199 = Australian External Territories, 1201 = New Zealand, 2100 = United Kingdom, 2102 = England, 2103 = Isle of Man, 2104 = Northern Ireland, 2105 = Scotland, 2106 = Wales, 2107 = Guernsey, 2108 = Jersey, 2201 = Ireland, 8102 = Canada, 8104 = United States of America and 9225 = South Africa, and 1 = 'Non-English-speaking country' for all other response options.

Being a father

Men in Waves 3–5 indicated how many children (including adult children) they had, including biological, step and adopted children. For each wave separately, we used this information to create a binary variable with categories of 0 = 'Not a father' for men who did not have any children at a particular wave and 1 = 'Father' for those who responded that they had at least one child.

Disability status

Using the Washington Group Short Set of Questions on Disability (Washington Group on Disability Statistics, 2006), respondents were asked to select with 'Yes' or 'No' as to whether they have difficulty:

- seeing, even if wearing glasses
- hearing, even if using a hearing aid
- walking or climbing steps
- remembering or concentrating
- with self-care such as washing all over or dressing
- understanding or being understood while using your usual (customary) language?

Those who responded 'Yes' to any of these questions were asked how much difficulty they have for each of these 6 items, with response options being 1 = 'Some difficulty', 2 = 'A lot of difficulty' and 3 = 'Cannot do at all'.

For each of Waves 3, 4 and 5, an indicator of disability status was generated, coded as '1 = With disability' for those who responded 2 = 'A lot of difficulty' or 3 = 'Cannot do at all' for at least one of the 6 items, and '0 = Without disability' for all other respondents.

Current or previous Defence member

In Wave 5 only, males were asked 'Have you ever served in the Australian Defence Force', with response options of 1 = No; 2 = Yes, current service (for regular service); 3 = Yes, previous service (for regular service); 4 = Yes, current service (for reserves service); 5 = Yes, previous service (for reserves service). We created a binary variable, with categories of 0 = No and 1 = Yes for people who have ever served or currently serve in the Australian Defence Force.

Masculine self-reliance and emotional control

Masculine self-reliance and emotional control were assessed using the Conformity to Masculine Norms Inventory (CMNI) from Wave 1 (Mahalik et al., 2003). The CMNI measures how strongly men align with traditional masculine behaviours. It includes 22 questions grouped into 11 domains, including self-reliance and emotional control. Response options for each question were 0 = Strongly disagree; 1 = Disagree; 2 = Agree and 3 = Strongly agree.

The masculine self-reliance domain consists of the sum of responses to the 2 items 'I never ask for help' and 'It bothers me when I have to ask for help', a continuous variable ranging from 0 to 6. The emotional control domain consists of the sum of response to the 2 items 'I like to talk about my feelings' and 'I tend to share my feelings' (both reverse coded), also a continuous variable ranging from 0 to 6.

Socio-economic risk factors

Region

For Waves 3, 4 and 5, an indicator of region was generated using the Australian Statistical Geography Standard (ASGS) that defines geographical locations in terms of remoteness, based on the 2016 Census of Population and Housing (Waves 3 and 4) and 2021 Census of Population and Housing (Wave 5). Detailed information about the Remoteness structure may be sourced from the Australian Bureau of Statistics (ABS) website: abs.gov.au. For the current analyses, categories were coded as 0 = Major cities; and 1 = Inner regional/Outer regional/Remote/Very remote (i.e. regional or remote).

Employment status

For Waves 3, 4 and 5, a binary indicator of employment status was generated. Information on employment status was collected from respondents by asking, 'Of the following categories, which best describes your current employment status?' Respondents could select from 1 = Full-time employee; 2 = Part-time employee; 3 = Self-employed; 4 = Employed – unpaid worker in a family business; 5 = Unemployed – seeking employment; 6 = Not employed – not seeking employment (Wave 3) or 6 = Not employed – not seeking employment (e.g. due to injury or disability, retired, primary caregiver) (Wave 4 or 5) and 7 = Retired (Wave 5 only). Those who selected options 1–4 were coded as '1 = Employed'. Those who responded with options 5–7 were coded as '2 = Unemployed or not in labour force'.

Educational status

For Waves 4 and 5, a binary indicator of educational status was generated. A binary variable was used to increase the sample size in interaction analyses. Information on education was collected from respondents by asking, 'What is the level of the highest qualification that you have completed?' Respondents could select from 1 = Postgraduate degree; 2 = Graduate diploma/Graduate certificate; 3 = Bachelor degree (with or without honours); 4 = Advanced diploma/diploma; 5 = Certificate III/IV (including trade certificate); 6 = Certificate I/II; 7 = Other non-school qualification; 8 = Year 12 or equivalent; 9 = Year 11 or equivalent; 10 = Year 10 or equivalent; 11 = Year 9 or equivalent and 12 = Year 8 or below. Those who selected options 1–8 were coded '2 = Year 12 or above' and consistent with previous *Ten to Men* work (Gasser et al., 2024; O'Donnell et al., 2024), those who selected options 9–12 were coded as '1 = Less than Year 12'.

Annual household income

For Waves 3, 4 and 5, a four-category variable for annual household income was created. Information on income was collected from respondents by asking, 'Which of these categories contains the combined income in your household, before tax and other deductions are taken out, during the last financial year; that is July 2019 to June 2020 (Wave 3) or July 2021 to June 2022 (Wave 4) or July 2023 to June 2024 (Wave 5)?' Response options for each of Waves 3–5 are shown in Table S1.

Table S1: Response options for household income in Waves 3–5 of the *Ten to Men* study

Response options for Waves 3–4	Response options for Wave 5
1 = $3,840 or more per week ($200,000 or more per year)	1 = $3,840–$4,799 per week ($200,000–$249,999 per year)
2 = $2,880–$3,839 per week ($150,000–$199,999 per year)	2 = $2,880–$3,839 per week ($150,000–$199,999 per year)
3 = $2,400–$2,879 per week ($125,000–$149,999 per year)	3 = $2,400–$2,879 per week ($125,000–$149,999 per year)
4 = $1,920–$2,399 per week ($100,000–$124,999 per year)	4 = $1,920–$2,399 per week ($100,000–$124,999 per year)
5 = $1,530–$1,919 per week ($80,000–$99,999 per year)	5 = $1,530–$1,919 per week ($80,000–$99,999 per year)
6 = $1,150–$1,529 per week ($60,000–$79,999 per year)	6 = $1,150–$1,529 per week ($60,000–$79,999 per year)
7 = $960–$1,149 per week ($50,000–$59,999 per year)	7 = $960–$1,149 per week ($50,000–$59,999 per year)
8 = $770–$959 per week ($40,000–$49,999 per year)	8 = $770–$959 per week ($40,000–$49,999 per year)
9 = $580–$769 per week ($30,000–$39,999 per year)	9 = $580–$769 per week ($30,000–$39,999 per year)
10 = $380–$579 per week ($20,000–$29,999 per year)	10 = $380–$579 per week ($20,000–$29,999 per year)
11 = $190–$379 per week ($10,000–$19,999 per year)	12 = $1–$379 per week ($1–$19,999 per year)
12 = $1–$189 per week ($1–$9,999 per year)	13 = Nil income
13 = Nil income	14 = Negative income
14 = Negative income	15 = $4,800–$5,759 per week ($250,000–$299,999 per year)
	16 = $5,760 or more per year ($300,000 or more per year)

Those who selected options 1 and 2 (Waves 3 and 4) or options 1, 2, 15 or 16 (Wave 5) were coded as '1 = $150,000 or more per year', those who selected options 3 and 4 were coded as '2 = $100,000 to $149,999 per year', those who selected options 5 to 7 were coded as '3 = $50,000 to $99,999 per year' and those who selected options 8 to 14 were coded as '4 = less than $50,000 per year'.

Financial stress

For each of Waves 4 and 5, respondents were asked if they had experienced any of 7 items over the past 12 months due to shortage of money, including being unable to fill/collect a prescription, get medical care or ask for financial help. For a full list of all items, please refer to the *Ten to Men* Data Books.

Most of the items in this report are similar to other studies, including the Household, Income and Labour Dynamics in Australia (HILDA) (Hayes & Watson, 2009) and the ABS Household Expenditure Survey and Survey of Income and Housing (Australian Bureau of Statistics [ABS], 2017). However, the ABS measures financial stress at a household level and includes more items than *Ten to Men*. In this report, experiencing financial stress refers to responding 'yes' to at least one item, similar to the definition used by the ABS (2017).

Socio-economic disadvantage

Disadvantage was measured with Socio-Economic Indexes for Areas (SEIFA), a measure developed by the ABS that ranks geographical areas of Australia according to relative socio-economic advantage and disadvantage. The 2016 SEIFA measure used in the current research (or 2021 measure for Wave 5) is based on information from the Index of Relative Socio-Economic Disadvantage (IRSD). Detailed information about SEIFA may be sourced from the ABS website: abs.gov.au. For the current analyses, for each of Waves 3–5 separately, we used IRSD quintiles, where the first quintile indicates most socio-economic disadvantage and the fifth quintile indicates least disadvantage, in line with previous studies (Pirkis et al., 2017a; Wilson et al., 2025a).

Risky behaviours

Drug use

For Waves 4 and 5, recent use of illicit drugs was measured with the question 'For each of the drugs listed below, indicate how often you have used it in the past 12 months.' Examples of the drugs measured were cannabis (i.e. marijuana, pot, grass, weed, joint), ice (i.e. crystal methamphetamine, shard, tina), cocaine (i.e. coke, charlie, blow, snow) and ecstasy (i.e. XTC, E, Ex, Eccy, MDMA). For a full list of all drugs, please refer to the *Ten to Men* Data Books. Response options were 0 = Never; 1 = Once or twice; 2 = Every few months; 3 = About once a month; 4 = 2 or 3 times a month; 5 = Once a week or more; and 6 = Every day. For each drug, a binary variable was created where those who selected '0 = Never' were coded as 0 and those who selected options 1–6 were coded as 1. We then created a variable for overall drug use in the past 12 months, where those who used no drugs were coded as 0 and those who used any of the drugs were coded as 1.

Gambling

In Waves 4 and 5, at-risk problem gambling during the previous 12 months was measured by the Problem Gambling Severity Index (PGSI), described previously (Ferris & Wynne, 2001). Men were asked a series of 9 questions relating to the previous 12 months. Examples included betting more than they could really afford to lose, borrowing money or selling anything to get money to gamble, and gambling causing financial problems for a man or his household. For a full list of examples, please refer to the *Ten to Men* Data Books.

Response options were '0 = Never', '1 = Sometimes', '2 = Most of the time' and '3 = Almost always'. To calculate the Problem Gambling Severity Index, scores for each item are summed for a total from 0 to 27 and are then categorised as follows:

- Non-problem gamblers – score of 0
- Low-risk gamblers – score of 1 or 2
- Moderate-risk gamblers – score from 3 to 7
- High-risk gamblers – score from 8 to 27

For our analyses, we generated a binary variable coded as '0 = Non-problem gambler' for men who were non-problem gamblers and '1 = Low or more risk gambler' for men who were low-, moderate- or high-risk gamblers with scores of 1 or more on the Problem Gambling Severity Index. Participants scoring 1+ may be classified as being at some risk of, or already experiencing, gambling-related problems.

Vaping

For Waves 4 and 5, respondents' current vaping was measured with the question, 'How often, if at all, do you currently use e-cigarettes?' Response options were 1 = I used to use them but no longer use; 2 = Less than monthly; 3 = At least monthly (but not weekly); 4 = At least weekly (but not daily); 5 = Once a day; 6 = 2–5 times a day; 7 = More than 5 times a day. Binary indicators were generated to indicate current vaping status, coded as 0 = not a current user and 1 = current user. Respondents who selected '1 = I used to use them but no longer use' or who responded '0 = No' to ever vaping (see supplementary materials of *Ten to Men* vaping snapshot (Gasser et al., 2024) for further details) were coded as '0' (not a current user). Those who selected a response option from '2 = Less than monthly' to '7 = More than 5 times a day' to the question were coded as '1' (current user).

Current cigarette smoking

Binary indicators, one each for Waves 4 and 5, capturing whether males currently smoke tobacco cigarettes were generated using the questions 'Do you currently smoke?' and 'Have you ever smoked even part of a cigarette?' Response options were 'no' and 'yes'. Men were coded as '0 = Not a current smoker' if they indicated that they had never smoked a cigarette or if they responded 'no' to currently smoking. Those who responded 'yes' to the currently smoking question were coded as '1 = Current smoker'.

Harmful alcohol use

In Waves 3, 4 and 5, alcohol use was measured using the 10-item World Health Organization's Alcohol Use Disorders Identification Test (AUDIT) (Babor et al., 2001), which asks about a series of alcohol use behaviours and experiences in the past 12 months. Examples included questions related to alcohol frequency, number of standard drinks on a drinking day and consuming 6 or more drinks in a session. For a full list of examples, please refer to the *Ten to Men* Data Books. The AUDIT Score is calculated by summing the score of each question. The AUDIT Harmful/Hazardous Drinking variable is based on the result of the AUDIT score. The AUDIT score is used to create the following 2 AUDIT Harmful/Hazardous Drinking categories:

- 0 Negative – score less than 8
- 1 Positive for Harmful/Hazardous Drinking – score of 8 or more.

Social support indicators

Use of support services

In Waves 4 and 5, men were asked whether they had sought help for personal or emotional problems from any of a number of sources in the last 12 months, including an intimate partner, mental health professional or work colleague/friend. For a full list of options, refer to the *Ten to Men* Data Books.

Men were also asked 'Have you had a personal, emotional or behavioural problem in the last 12 months?', with response options of 0 = No and 1 = Yes. From these 2 variables, we then created a binary variable for use of support services for Waves 4 and 5, separately. Men who reported seeking help from at least one of the sources or not having a personal, emotional or behavioural problem were coded as 1 and all other men, including those who did not seek help from any of the sources, were coded as 0.

Feeling lonely

To measure loneliness, respondents were asked a series of questions from the UCLA Loneliness Scale (Russell et al., 1980) in Waves 4 and 5. Using the scale 1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Often and 5 = Always, respondents were asked 'Currently, how often do you feel that you …

- Lack companionship?
- Feel left out?
- Feel isolated from others?
- Feel lonely?'

Consistent with Hughes et al. (2004), we generated new 3-category variables for the questions relating to lacking companionship, feeling left out and feeling isolated from others, for use in a scale. Those who responded with '1 = Never' or '2 = Rarely' were coded as '1 = Hardly ever', those who responded with '3 = Sometimes' were coded as '2 = Some of the time' and those who responded with '4 = Often' or '5 = Always' were coded as '3 = Often'. Consistent with Hughes et al. (2004), we then generated a 3-item loneliness scale, which was the sum of these 3 3-category variables (i.e. a score from 3 to 9), provided that respondents had no missing data on any of these 3 variables. Consistent with previous recent studies (e.g. Barr-Porter et al., 2024; Mo et al., 2024), we generated a binary variable, based on the score from 3 to 9. Those with scores from 3 to 5 were coded as '0 = Not lonely' and those with scores from 6 to 9 were coded as '1 = Lonely'.

Relationship quality

In each of Waves 3 and 4, men were asked 'taking everything into consideration, how do you feel about your relationship as a whole?', with response options of 1 = Very dissatisfied; 2 = Moderately dissatisfied; 3 = Slightly dissatisfied; 4 = Neither dissatisfied nor satisfied; 5 = Slightly satisfied; 6 = Moderately satisfied and 7 = Very satisfied. We created binary variables for relationship quality, where those who responded 7 = Very satisfied were coded as 2 = Very satisfied and those who responded with response options 1–6 were coded as 1 = Moderately satisfied or less.

Social support

In each of Waves 4 and 5, men completed the 8-item emotional/informational support subscale of the Medical Outcomes Study Social Support Survey (MOS Scale) (Sherbourne & Stewart, 1991). Men were asked to indicate how often each of several kinds of support were available to them if they need it, including someone to give them good advice about a crisis, someone whose advice they really want and someone who understands their problems. For a full list of all kinds of support, please refer to the *Ten to Men* Data Books.

Response options for questions were 1 = None of the time; 2 = A little of the time; 3 = Some of the time; 4 = Most of the time and 5 = All of the time. For some analyses, we analysed each of these 8 items separately as continuous measures.

We also used a total score for social support for Waves 3–5 in other analyses. This score was calculated by summing the items for those who responded to all items. It was then transformed into a score ranging from 0 to 100, with higher scores indicating higher levels of social support (Quinn et al., 2021; Wilson et al., 2025a).

Health literacy

In each of Waves 4 and 5, health literacy was measured by questions from the Health Literacy Questionnaire (HLQ) (Osborne et al., 2013). Men were asked how easy or difficult a number of tasks are for them to do, including having a good discussion about their health with doctors, finding information about health problems and getting health information in words they understand. For a full list of tasks, please refer to the *Ten to Men* Data Books.

Response options for each question were 0 = Cannot do; 1 = Very difficult; 2 = Quite difficult; 3 = Quite easy and 4 = Very easy. For the HLQ, separate scores are calculated for each of the 9 domains that indicate a person's strengths and needs in relation to their health literacy in that area. In *Ten to Men*, the following domains have been assessed:

- Ability to actively engage with health care providers (items 1, 3, 5, 8 and 9)

- Ability to find good health information (items 2, 4, 6, 7 and 10).

The domain scores are calculated by summing the relevant variables for that particular domain. Lower scores indicate less health care support, lower health care engagement and poorer health literacy. We analysed the scores from both of these domains as continuous variables for our analyses.

Barriers to health care

In Wave 5, health barriers were assessed by self-report where men were asked if, during the past 12 months, they were unable to access health care for any of 11 reasons (9 reasons in Wave 5). 'Not applicable' and 'Other' could also be selected. Examples included cost, waiting time too long/no appointments and work commitments. Responses were coded as '0 = No' and '1 = Yes'. Responses coded as 'not applicable' were recoded as 'no'. Health barriers were then grouped into 4 categories: health system (no service available in area at time needed, waiting time too long/no appointments and/or not taking new patients), structural (cost and transportation problems), individual (decided not to seek care/didn't bother, personal/family and work commitments) and cultural (language problems), consistent with previous research (Gasser et al., 2025; Macdonald et al., 2022).

We then created binary variables for use of barriers in Waves 4 and 5, separately. Participants who reported no barriers from any of the 4 categories were coded as 0 = No barriers and those who reported one or more barriers from at least one category were coded as 1 = At least one barrier.

Living arrangements (living alone or not)

In Waves 4 and 5, men were asked to specify their usual living arrangements. Options included living alone, living with one or both parents and living with their children (including step, adopted and foster children). Respondents could select more than one option. We created a binary variable for living alone in Waves 4 and 5, with response options of '1 = Living alone' and '0 = Not living alone'.

Whether someone was in a new relationship

In Waves 4 and 5, men were asked the question 'What is your current relationship status?', with response options of 1 = I am single; 4 = I am engaged; 5 = I am married; 6 = I am divorced; 7 = I am separated; 8 = I am widowed and 9 = I am in a relationship (not married or engaged). We used this information to create a binary variable for whether a man was in a new relationship at each of Waves 4 and 5, with categories of '1 = In a new relationship' for response options of 4, 5 and 9 and '0 = Not in a new relationship' for response options of 1, 6, 7 and 8.

Data analysis

All statistical analyses were performed using Stata/MP 19.0.

Research question 1

We firstly calculated the population-weighted prevalence of each suicidal thought and behaviours (suicidal thoughts in the past 2 weeks, and suicidal thoughts, plans and attempts in the past 12 months) in Wave 5 (2024–2025), the most recent wave. For this analysis, we used raked cross-sectional population weights for Wave 5 and calculated prevalences separately for all men, those who experienced relationship breakdown and those who did not experience relationship breakdown in the past 12 months. Results were presented using bar charts with 95% confidence intervals.

We then calculated prevalences of each suicidal thoughts and behaviours outcome in Wave 5 but for specific priority population groups and those with higher rates of suicide. Regarding priority population groups, we considered LGBTQA+ people, bisexual and gay or lesbian people (separately), fathers, current or previous members of the Australian Defence Force, and men living in regional/remote areas, with disability, who speak a language other than English at home, born in non-English-speaking countries, who are Aboriginal and/or Torres Strait Islander, who are unemployed, with less than a year 12 education or experiencing financial stress.

Regarding groups known to have higher rates of suicide risk, we considered men who recently used illicit drugs, engage in problem gambling, currently use e-cigarettes, currently smoke, are lonely or have low levels of social support (measured by use of support services). For this analysis, we also used raked cross-sectional population weights for Wave 5 and calculated prevalences separately for those who did and did not experience relationship breakdown in the past 12 months.

Finally, we assessed how all suicidal thoughts and behaviours changed over time. We calculated the prevalence of suicidal thoughts in the past 2 weeks in Waves 1–5 and all other prevalences in Waves 2–5. We also used raked cross-sectional population weights for each wave, and calculated prevalences separately for all men, those who experienced relationship breakdown and those who did not experience relationship breakdown in the past 12 months. We presented results using line graphs with 95% confidence intervals.

Research question 2

We firstly examined associations between relationship breakdown in 2024–2025 and suicidal thoughts in the past 2 weeks in 2024–2025 using Poisson regression analyses, with robust error variances (Figure S1). Consistent with the approach used by Wilson et al. (2025a), we fitted 4 models. Model 1 was unadjusted; model 2 adjusted for age, LGBTQA+ status,[2] Indigenous status, employment status, income, whether a man was a father, region and IRSD quintile; model 3 adjusted for the same variables as model 2 plus social support (measured by the MOS scale, as a continuous measure), harmful alcohol use, and the self-reliance and emotional control masculinity domains; and model 4 adjusted for all variables in model 3 as well as suicidal thoughts from the previous wave (Wave 4). Unlike Wilson et al. (2025a), we did not adjust for wave, given that we only used one wave in these models. All covariates were taken from Wave 5, except First Nations status (which was constant across waves), masculinity domains, which were taken from Wave 1, and suicidal thoughts in the previous wave, which was from Wave 4.

Covariates were chosen based on documented associations with both relationship breakdown and suicidality and from directed acyclic graphs (DAGs). Only the final model (model 4) included previous suicidal thoughts, as this likely explains most of the association. Masculinity variables were chosen based on previous literature using *Ten to Men* data from Wave 1 (Pirkis et al., 2017b). Previous suicidal thoughts was chosen based on previous studies (e.g. Idstad et al., 2015) showing that mental distress predicts later divorce.

We next examined associations between relationship breakdown in 2022 and all suicidal thoughts and behaviours in the subsequent wave (2024–2025) (Figure S1). We also fitted 4 models, adjusting for the same covariates as described above, for the 2024–2025 models. However, in these models, all covariates were taken from Wave 4, except First Nations status (which was constant across waves), and masculinity domains, which were taken from Wave 1.

Finally, we investigated associations between relationship breakdown in 2020–21 and all suicidal thoughts and behaviours in the longer term (in 2024–2025) (Figure S1). We fitted the same 4 models, adjusting for the same

2 No intersex (I) people were included in the *Ten to Men* sample. We have included 'L' in the acronym, given the wording used in the *Ten to Men* questionnaire, with 'gay or lesbian' being a response option. Additionally, 22 Wave 5 respondents identified as female.

covariates as for the 2022 and 2024–2025 models. However, all covariates were taken from Wave 3, except First Nations status (which was constant across waves) and masculinity domains (which were taken from Wave 1). In model 4, we adjusted for the same measures of suicidality from both Waves 3 and 4. In fully adjusted models for suicidal plans and attempts using relationship breakdown from 2020–21, we excluded First Nations status due to sample size constraints for this variable.

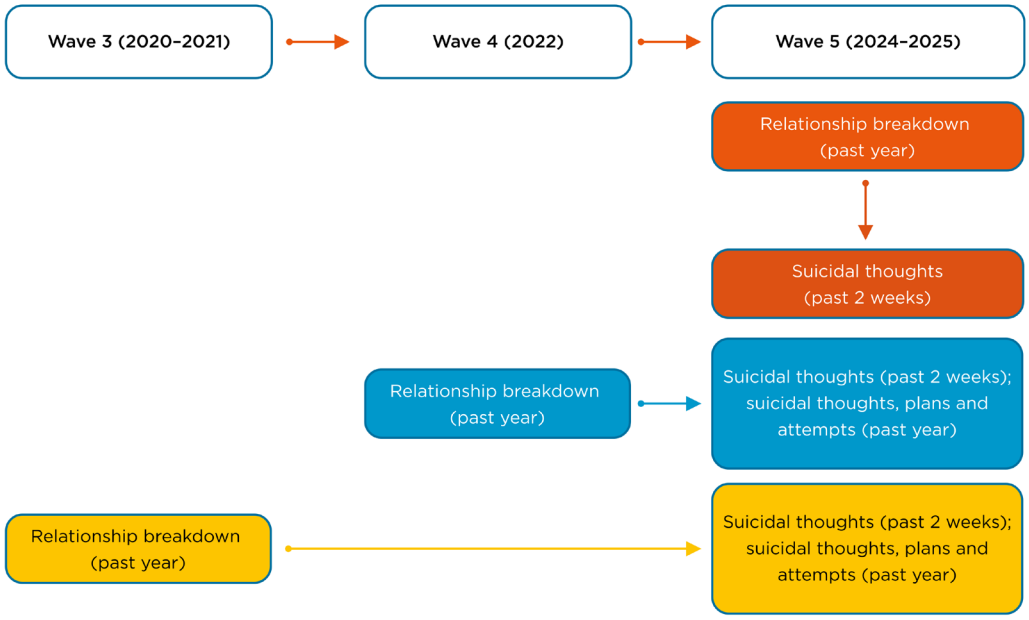
We then investigated whether the association between relationship breakdown and later suicidal thoughts and behaviours differed according to potential moderators, including personal characteristics, and demographic and socio-economic factors, risky behaviours and a lack of social support, using interaction terms. We used interaction terms in Poisson regression models for relationship breakdown in 2022 and 2024–2025. Moderators for each category are shown in Table S2. Given small sample sizes for suicide attempts, we only conducted interaction analyses for suicidal thoughts and plans; not attempts. We also did not conduct interaction analyses for relationship breakdown in 2020–21 due to sample size limitations.

Finally, for Wave 5 analyses, we conducted sensitivity analyses that excluded men who had entered a new relationship after experiencing relationship breakdown. For these analyses, men were grouped into 2 categories: those who did not experience relationship breakdown in the past 12 months and those who experienced relationship breakdown in the past 12 months but were not in a new relationship.

Table S2: Moderators considered in Poisson regression analyses using interaction terms

Category	Moderators considered	Wave(s) in 2022 (longitudinal) analyses	Wave(s) in 2024–2025 (cross-sectional) analyses
Personal characteristics	Relationship quality	Wave 3 and 4	Wave 4
	LGBTQA+ status	Wave 4	Wave 5
	Region	Wave 4	Wave 5
	Disability status	Wave 4	Wave 5
	Being a father	Wave 4	Wave 5
	Whether someone was in a new relationship	Waves 4 and 5	Wave 5
	Age	Wave 4	Wave 5
	Age at breakdown	Wave 4	Wave 5
	Country of birth	Sample sizes too small	Wave 5
	Language spoken at home	Sample sizes too small	Wave 5
	Defence force status	Sample sizes too small	Wave 5
	Indigenous status	Sample sizes too small	Wave 5
Demographic and socio-economic factors	Employment	Wave 4	Wave 5
	Education	Wave 4	Wave 5
	Financial stress	Wave 4	Wave 5
Risky behaviours	Drug use	Wave 4	Wave 5
	Gambling	Wave 4	Wave 5
	Vaping	Wave 4	Wave 5
	Smoking	Wave 4	Wave 5
Social support	Health literacy	Waves 4 and 5	Wave 5
	Social support (individual measures from MOS scale)	Waves 4 and 5	Wave 5
	Use of support services	Wave 4	Wave 5
	Loneliness	Wave 4	Wave 5
	Barriers to health service use	Wave 5	Wave 5
	Living alone	Waves 4 and 5	Wave 5

Figure S1: Diagram showing Poisson regression analyses conducted for research question 2 (cross-sectional and longitudinal)



Strengths, limitations and data considerations

This *Ten to Men* snapshot has many unique strengths. Firstly, the data are from a nationally representative study, which can allow findings to be generalised more broadly to the Australian male population. Additionally, it uses longitudinal data, which can allow temporality of associations between relationship breakdown and suicidal thoughts and behaviours to be investigated. While we also conducted cross-sectional analyses using only Wave 5 data (because relationship breakdown was measured in the past 12 months and suicidal thoughts in the past 2 weeks), in most cases, relationship breakdown would have preceded suicidal thoughts in these analyses. The longitudinal design of *Ten to Men* also allowed us to investigate how the prevalence of suicidal thoughts and behaviours changed over time.

Our analysis also includes larger sample sizes than previous waves, given that it was completed after the sample top-up, when around 10,000 additional men were recruited. This enabled more robust estimates for priority population groups including Aboriginal and/or Torres Strait Islander men, culturally and linguistically diverse men, LGBTQA+ people, young men and men living in remote or very remote areas.

In addition to recent suicidal thoughts, we examined associations between relationship breakdown and suicidal plans and attempts. We also investigated potential moderators of the association for suicidal plans. This provides a more complete picture of suicide risk following relationship breakdown and has direct implications for suicide prevention policy and practice, given that each has a different association with subsequent suicidal risk (Daray et al., 2025; McHugh et al., 2019; Prabhakar et al., 2021). Finally, we built upon previous research by Wilson et al. (2025a) by considering a wide range of moderators, including personal characteristics, socio-economic risk factors, risky behaviours and social support indicators.

This snapshot also has some limitations. For some analyses, particularly interaction analyses, sample sizes were quite small, leading to wide confidence intervals and affecting the precision of estimates. Specifically, sample sizes of men attempting suicide were very small, meaning that we could not conduct interaction analyses for suicide attempts. There was only weak evidence of an association between relationship breakdown in 2020–21 and suicide attempts in 2024–2025. However, this is likely due to a small sample size and wide confidence intervals rather than no real association.

Given small sample sizes, for interaction analyses (research question 2), we could not separate Defence force service into current and past service. Similarly, we could not consider different members of LGBTQA+ communities (e.g. bisexual men, transgender people) separately for these analyses. We acknowledge the limitations of considering LGBTQA+ respondents as one group but the *Ten to Men* sample had small sample sizes in each group so we needed

to consider these respondents collectively. The effects of relationship breakdown on suicidal thoughts and behaviours may differ more specifically and would be worthwhile to examine in future research where sample sizes allow.

A further limitation was that we could only look at the short-term effects of relationship breakdown on suicidal thoughts but not on plans or attempts. Given that plans and attempts were only measured in the past 12 months, there would have been temporality issues with looking at the association between relationship breakdown and these 2 measures from the same wave. This warrants investigation in future research, including whether thoughts or plans in the short-term might lead to attempts in the longer term. Reverse causation is also possible, whereby suicidal thoughts might lead to relationship breakdown, rather than the other way around. However, given that we only conducted cross-sectional analyses for suicidal thoughts in the past 2 weeks, this is unlikely and probably only for a small number of men. This could be examined in future research.

Suicide risk may also differ according to the number of relationship breakdowns experienced or cumulative exposure. While this number was low in our analyses, this could be investigated in future waves once more data are available, as well as whether there is a dose-response effect.

As is the case in most longitudinal studies, there was loss to follow-up. Men who were lost to follow-up were slightly more likely to have experienced poor mental health, including suicidal thoughts and behaviours, meaning that associations with relationship breakdown may have been even stronger than what was observed. Given that suicide is a sensitive topic, it is possible that some participants may have underreported suicidal thoughts and behaviours, also potentially underestimating associations observed.

Finally, as in all observational studies, there is the potential for residual confounding. However, we included many covariates in our regression models, so this impact is likely to be minimal. We also did not measure the reasons for relationship breakdown in this study, which may be useful to collect in future waves for more fine-grained analyses related to this topic or to investigate in qualitative research, including interviews.

Full results

Table S3: Prevalences of suicidal thoughts and behaviours in 2024–2025, overall, for men who did, and for men who did not experience relationship breakdown in the past 12 months

Outcome	Relationship breakdown (% [95% CI])	*n*	No relationship breakdown (% [95% CI])	*n*	Overall prevalence (% [95% CI])	*n*
Suicidal thoughts in the past 2 weeks	30.8 [27.6, 34.2]	889	14.4 [13.7, 15.2]	11,353	15.9 [15.2, 16.6]	12,574
Suicidal thoughts in the past 12 months	18.3 [15.4, 21.6]	715	5.2 [4.7, 5.7]	9,587	6.2 [5.7, 6.7]	10,413
Suicidal plans in the past 12 months	13.6 [11.1, 16.7]	711	3.3 [3.0, 3.7]	9,561	4.1 [3.7, 4.5]	10,384
Suicide attempts in the past 12 months	6.8 [5.0, 9.1]	710	0.9 [0.7, 1.2]	9,569	1.4 [1.2, 1.7]	10,388

Notes: Approximately 7.3% of men (*n* = 896) experienced relationship breakdown in Wave 5.

Source: *Ten to Men* data, population-weighted percentages and unweighted sample sizes, Wave 5

Table S4: Prevalences of suicidal thoughts and behaviours in 2024–2025 for men in priority population groups who did and did not experience relationship breakdown in the past 12 months

Group	Suicidal thoughts, past 2 weeks		Suicidal thoughts, past 12 months		Suicidal plans, past 12 months		Suicide attempts, past 12 months	
	Relationship breakdown (% [95% CI])	No relationship breakdown (% [95% CI])	Relationship breakdown (% [95% CI])	No relationship breakdown (% [95% CI])	Relationship breakdown (% [95% CI])	No relationship breakdown (% [95% CI])	Relationship breakdown (% [95% CI])	No relationship breakdown (% [95% CI])
LGBTQA+ people (*n* = 1,275)	42.1 [34.0, 50.6]	23.7 [21.1, 26.5]	28.0 [20.3, 37.3]	10.7 [8.8, 13.0]	22.0 [15.0, 31.0]	7.2 [5.6, 9.2]	15.2 [9.5, 23.4]	2.5 [1.6, 3.8]
Bisexual people (*n* = 513)	50.8 [37.7, 63.7]	26.2 [22.0, 30.9]	41.1 [28.2, 55.4]	11.0 [8.0, 14.8]	30.9 [19.4, 45.4]	7.9 [5.4, 11.3]	16.4 [8.2, 29.9]	1.3 [0.5, 3.4]
Gay or lesbian people (*n* = 623)	31.3 [20.7, 44.5]	18.3 [15.1, 22.1]	13.7 [6.2, 27.5]	8.0 [5.7, 11.0]	10.0 [3.9, 23.4]	4.7 [3.0, 7.3]	11.5 [4.9, 24.8]	2.1 [1.0, 4.0]
Regional/remote areas (*n* = 3,551)	34.1 [28.5, 40.2]	15.0 [13.8, 16.3]	21.6 [16.5, 27.7]	6.3 [5.4, 7.3]	17.2 [12.6, 23.0]	3.8 [3.2, 4.6]	6.9 [4.1, 11.3]	1.0 [0.7, 1.4]
Disability (*n* = 968)	59.0 [50.1, 67.4]	43.2 [39.5, 46.9]	40.6 [31.0, 50.9]	18.3 [15.2, 21.8]	29.2 [20.8, 39.4]	13.5 [10.9, 16.7]	21.4 [14.0, 31.2]	4.4 [2.9, 6.5]
Fathers (*n* = 7,404)	27.6 [23.1, 32.5]	12.1 [11.3, 13.0]	18.2 [14.2, 23.1]	4.6 [4.1, 5.3]	14.4 [10.8, 19.0]	2.9 [2.5, 3.4]	6.5 [4.1, 10.0]	0.7 [0.5, 0.9]
Current or previous member of defence force (*n* = 609)	32.7 [20.1, 48.3]	14.7 [11.7, 18.2]	25.6 [13.6, 43.1]	5.9 [4.0, 8.6]	17.9 [8.2, 34.9]	4.7 [3.1, 7.2]	12.8 [5.0, 29.1]	0.8 [0.3, 2.3]
Language other than English (*n* = 2,531)	28.3 [21.7, 35.9]	15.0 [13.5, 16.7]	12.8 [7.9, 19.9]	3.5 [2.7, 4.6]	8.6 [4.7, 15.2]	2.1 [1.5, 3.0]	3.5 [1.4, 8.8]	0.6 [0.3, 1.2]
Non-English speaking country of birth (*n* = 3,272)	31.8 [25.5, 38.9]	13.7 [12.4, 15.1]	14.4 [9.5, 21.1]	3.5 [2.8, 4.4]	11.5 [7.2, 18.0]	2.1 [1.6, 2.8]	4.8 [2.3, 9.9]	0.9 [0.6, 1.4]
Aboriginal and/or Torres Strait Islander (*n* = 390)	42.2 [29.9, 55.5]	28.1 [22.9, 34.0]	39.2 [25.9, 54.3]	14.6 [10.2, 20.4]	33.3 [20.9, 48.5]	9.0 [5.6, 14.0]	30.0 [18.1, 45.3]	6.6 [3.8, 11.2]
Unemployed (*n* = 1,644)	39.3 [31.7, 47.5]	23.2 [20.9, 25.6]	25.9 [18.7, 34.8]	11.6 [9.8, 13.8]	18.8 [12.6, 27.1]	8.0 [6.5, 9.9]	11.2 [6.5, 18.5]	3.0 [2.1, 4.3]
Less than year 12 education (*n* = 1,057)	42.3 [32.2, 53.0]	19.5 [16.9, 22.5]	24.7 [15.7, 36.5]	8.6 [6.7, 11.0]	18.2 [10.6, 29.5]	5.4 [3.9, 7.4]	12.0 [6.0, 22.6]	2.2 [1.3, 3.7]
Financial stress (*n* = 3,085)	41.4 [36.3, 46.6]	28.3 [26.5, 30.2]	28.3 [23.2, 33.9]	11.2 [9.8, 12.7]	21.3 [16.8, 26.6]	7.6 [6.5, 8.9]	11.3 [8.0, 15.7]	2.6 [2.0, 3.5]
Recent illicit drug use (*n* = 2,085)	35.4 [29.4, 41.9]	19.6 [17.7, 21.7]	22.5 [16.9, 29.3]	8.3 [6.9, 9.9]	16.2 [11.5, 22.4]	5.2 [4.1, 6.5]	12.0 [8.0, 17.7]	1.8 [1.2, 2.7]
Problem gambling (*n* = 1,552)	44.3 [37.0, 51.9]	25.8 [23.4, 28.5]	25.0 [18.3, 33.2]	9.5 [7.7, 11.6]	17.8 [12.2, 25.4]	5.4 [4.1, 7.1]	12.3 [7.7, 19.2]	2.1 [1.3, 3.2]
Current e-cigarette use (*n* = 1,102)	35.9 [27.9, 44.6]	22.8 [20.0, 25.8]	23.4 [15.7, 33.2]	9.0 [7.0, 11.5]	14.8 [8.9, 23.7]	5.2 [3.7, 7.2]	12.3 [6.9, 20.9]	1.7 [0.9, 3.0]

Group	Suicidal thoughts, past 2 weeks		Suicidal thoughts, past 12 months		Suicidal plans, past 12 months		Suicide attempts, past 12 months	
	Relationship breakdown (% [95% CI])	No relationship breakdown (% [95% CI])	Relationship breakdown (% [95% CI])	No relationship breakdown (% [95% CI])	Relationship breakdown (% [95% CI])	No relationship breakdown (% [95% CI])	Relationship breakdown (% [95% CI])	No relationship breakdown (% [95% CI])
Current smoking (*n* = 1,349)	44.6 [36.7, 52.7]	22.2 [19.7, 24.9]	33.3 [24.9, 43.0]	9.0 [7.2, 11.2]	21.8 [14.8, 31.0]	6.2 [4.7, 8.1]	16.9 [10.8, 25.6]	3.4 [2.3, 4.9]
Lonely (*n* = 3,520)	40.8 [36.3, 45.4]	32.0 [30.2, 33.9]	24.1 [20.0, 28.8]	12.5 [11.2, 14.1]	18.3 [14.6, 22.7]	8.1 [7.0, 9.3]	8.1 [5.7, 11.5]	2.2 [1.6, 2.9]
Low social support (*n* = 846)	44.6 [32.3, 57.6]	31.1 [27.7, 34.7]	30.8 [19.0, 45.7]	10.6 [8.3, 13.4]	22.2 [12.5, 36.5]	7.6 [5.7, 10.1]	11.3 [4.8, 24.4]	2.1 [1.2, 3.6]

Notes: Approximately 7.3% of men (*n* = 896) experienced relationship breakdown in Wave 5. This proportion ranged from 5.5% (*n* = 409) for fathers to 17.7% (*n* = 69) for Aboriginal and/or Torres Strait Islander men specifically.

Source: *Ten to Men* data, population-weighted percentages and unweighted sample sizes, Wave 5

Across most priority population groups and groups known to have higher suicide risk, the prevalence of all suicidal thoughts and behaviours was higher among men who experienced relationship breakdown compared who those who did not. Examples for each group in Table S4 are described below:

- **LGBTQA+ people**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 15.2% of LGBTQA+ people who experienced recent relationship breakdown attempted suicide in the past 12 months, compared to 2.5% who did not experience recent relationship breakdown.
- **Bisexual people**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 41.1% of bisexual men who experienced relationship breakdown had suicidal thoughts in the past 12 months, compared to 11.0% who did not experience recent relationship breakdown.
- **Gay or lesbian people**: higher prevalence of suicide attempts among those who experienced relationship breakdown. Around 11.5% of gay or lesbian people who experienced recent relationship breakdown attempted suicide in the past 12 months, compared to 2.1% who did not experience recent relationship breakdown.
- **Men in regional/remote areas**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, 17.2% of men in regional or remote areas who experienced recent relationship breakdown made suicidal plans in the past 12 months, compared to 3.8% who did not experience recent relationship breakdown.
- **Disability**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 40.6% of men with disability who experienced recent relationship breakdown had suicidal thoughts in the past 12 months, compared to 18.3% who did not experience recent relationship breakdown.
- **Fathers**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 14.4% of fathers who experienced recent relationship breakdown made suicidal plans in the past 12 months, compared to 2.9% of fathers who did not experience recent relationship breakdown.
- **Current or past ADF service**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 12.8% of current/past ADF members who experienced recent relationship breakdown attempted suicide in the past 12 months, compared to 0.8% who did not experience recent relationship breakdown.
- **Language other than English**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, 8.6% of men who spoke a language other than English at home and experienced recent relationship breakdown made suicidal plans in the past 12 months, compared to 2.1% who did not experience recent relationship breakdown.

- **Men born in non-English-speaking countries**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 31.8% of men born in non-English-speaking countries who experienced recent relationship breakdown had recent suicidal thoughts, compared to 13.7% who did not experience recent relationship breakdown.
- **Aboriginal and/or Torres Strait Islander**: higher prevalence of thoughts, plans and attempts in the past 12 months among those who experienced relationship breakdown. For example, around 30.0% of Aboriginal and/or Torres Strait Islander men who experienced recent relationship breakdown attempted suicide in the past 12 months, compared to 6.6% who did not experience recent relationship breakdown.
- **Unemployed**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 25.9% of unemployed men who experienced recent relationship breakdown had suicidal thoughts in the past 12 months, compared to 11.6% who did not experience recent relationship breakdown.
- **Less than year 12 education**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 42.3% of men with less than a year 12 education who experienced recent relationship breakdown had suicidal thoughts in the past 2 weeks, compared to 19.5% of men who did not experience recent relationship breakdown.
- **Financial stress**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 21.3% of men who experienced financial stress and recent relationship breakdown made suicidal plans in the past 12 months, compared to 7.6% who did not experience recent relationship breakdown.
- **Recent illicit drug use**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 12.0% of men who recently used illicit drugs and experienced recent relationship breakdown attempted suicide in the past 12 months, compared to 1.8% who did not experience recent relationship breakdown.
- **Problem gambling**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 12.3% of men who engaged in problem gambling and experienced recent relationship breakdown attempted suicide in the past 12 months, compared to 2.1% who did not experience recent relationship breakdown.
- **Current e-cigarette use**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 14.8% of men who currently use e-cigarettes and experienced recent relationship breakdown made suicidal plans in the past 12 months, compared to 5.2% who did not experience recent relationship breakdown.
- **Current smoking**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 44.6% of men who smoke and experienced recent relationship breakdown had suicidal thoughts in the past 2 weeks, compared to 22.2% who did not experience recent relationship breakdown.
- **Lonely**: higher prevalence of all thoughts and behaviours among those who experienced relationship breakdown. For example, around 8.1% of men who were lonely and experienced recent relationship breakdown attempted suicide in the past 12 months, compared to 2.2% who did not experience recent relationship breakdown.
- **Low social support**: higher prevalence of thoughts, plans and attempts in the past 12 months among those who experienced relationship breakdown. For example, around 30.8% of men with low levels of social support who experienced recent relationship breakdown had suicidal thoughts in the past 12 months, compared to 10.6% who did not experience recent relationship breakdown.

Table S5: Prevalences of suicidal thoughts and behaviours in 2013–14, 2015–16, 2020–21, 2022 and 2024–2025, overall, for men who did, and for men who did not experience relationship breakdown in the past 12 months

Outcome	Relationship breakdown (% [95% CI])	*n*	No relationship breakdown (% [95% CI])	*n*	Overall prevalence (% [95% CI])	*n*
Wave 1						
Suicidal thoughts in the past 2 weeks	20.5 [17.6, 23.7]	322	9.0 [8.2, 9.9]	5,304	10.2 [9.3, 11.0]	14,613
Wave 2						
Suicidal thoughts in the past 2 weeks	23.9 [19.0, 29.5]	292	9.6 [8.8, 10.6]	4,989	10.7 [9.8, 11.7]	10,892
Suicidal thoughts in the past 12 months	22.1 [17.6, 27.4]	292	6.7 [5.9, 7.6]	4,969	7.8 [7.0, 8.7]	10,835
Suicidal plans in the past 12 months	12.6 [9.6, 16.3]	292	3.3 [2.8, 4.0]	4,971	4.0 [3.4, 4.6]	10,847
Suicide attempts in the past 12 months	4.0 [2.3, 6.9]	291	0.8 [0.5, 1.2]	4,987	1.0 [0.7, 1.4]	10,866
Wave 3						
Suicidal thoughts in the past 2 weeks	29.1 [22.5, 36.7]	280	10.9 [9.7, 12.2]	4,776	11.9 [10.8, 13.2]	7,227
Suicidal thoughts in the past 12 months	17.4 [11.8, 24.7]	258	4.6 [3.8, 5.5]	4,451	5.4 [4.6, 6.3]	6,535
Suicidal plans in the past 12 months	15.2 [9.9, 22.5]	262	3.7 [3.0, 4.5]	4,472	4.4 [3.7, 5.3]	6,575
Suicide attempts in the past 12 months	3.0 [1.4, 6.2]	262	0.6 [0.4, 1.2]	4,487	0.9 [0.6, 1.4]	6,588
Wave 4						
Suicidal thoughts in the past 2 weeks	29.3 [21.6, 38.4]	279	10.8 [9.5, 12.2]	4,852	12.0 [10.6, 13.4]	6,545
Suicidal thoughts in the past 12 months	25.9 [17.7, 36.3]	233	4.4 [3.5, 5.5]	4,121	5.7 [4.7, 7.0]	5,256
Suicidal plans in the past 12 months	21.0 [13.2, 31.6]	233	3.8 [2.9, 4.9]	4,142	4.9 [3.9, 6.1]	5,277
Suicide attempts in the past 12 months	5.7 [2.1, 14.7]	235	0.6 [0.3, 1.2]	4,161	0.9 [0.5, 1.6]	5,304
Wave 5						
Suicidal thoughts in the past 2 weeks	30.8 [27.6, 34.2]	889	14.4 [13.7, 15.2]	11,353	15.9 [15.2, 16.6]	12,574
Suicidal thoughts in the past 12 months	18.3 [15.4, 21.6]	715	5.2 [4.7, 5.7]	9,587	6.2 [5.7, 6.7]	10,413
Suicidal plans in the past 12 months	13.6 [11.1, 16.7]	711	3.3 [3.0, 3.7]	9,561	4.1 [3.7, 4.5]	10,384
Suicide attempts in the past 12 months	6.8 [5.0, 9.1]	710	0.9 [0.7, 1.2]	9,569	1.4 [1.2, 1.6]	10,388

Notes: Suicidal thoughts in the past 2 weeks were measured in Waves 1–5. Suicidal thoughts, plans and attempts in the past 12 months were measured in Waves 2–5.
Source: *Ten to Men* data, population-weighted percentages and unweighted sample sizes, Waves 1–5

Table S6: Parameter estimates from multivariable Poisson regression models examining the association between recent relationship breakdown in 2024–2025 (Wave 5) and suicidal thoughts in the past 2 weeks in 2024–2025 (Wave 5)

	Model 1[a]			Model 2[a]			Model 3[a]			Model 4[a]		
	RR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*
Recent relationship breakdown (ref. = no)	2.14	[1.92, 2.38]	<0.01	1.79	[1.59, 2.01]	<0.01	1.80	[1.46, 2.23]	<0.01	1.59[b]	[1.27, 2.00][b]	<0.01[b]
Covariates												
Age	-	-	-	0.98	[0.98, 0.99]	<0.01	0.98	[0.97, 0.98]	<0.01	0.98	[0.98, 0.99]	<0.01
Not male-identifying and/or non-heterosexual (ref. = male identifying and heterosexual)	-	-	-	1.47	[1.31, 1.65]	<0.01	1.36	[1.06, 1.75]	0.02	1.09	[0.85, 1.41]	0.49
Aboriginal and/or Torres Strait Islander (ref. = not Aboriginal and/or Torres Strait Islander)	-	-	-	1.40	[1.17, 1.66]	<0.01	0.79	[0.49, 1.28]	0.34	0.67	[0.35, 1.26]	0.22
Unemployed or not in labour force (ref. = employed)	-	-	-	1.38	[1.23, 1.55]	<0.01	1.35	[1.08, 1.68]	0.01	1.22	[0.99, 1.50]	0.07
Annual household income (ref. = $150,000 per year and above)												
$100,000 to $149,999 per year	-	-	-	1.24	[1.08, 1.41]	<0.01	1.08	[0.87, 1.33]	0.51	1.05	[0.85, 1.31]	0.63
$50,000 to $99,999 per year	-	-	-	1.49	[1.32, 1.69]	<0.01	1.36	[1.11, 1.67]	<0.01	1.28	[1.05, 1.58]	0.02
Below $50,000 per year	-	-	-	1.80	[1.56, 2.07]	<0.01	1.55	[1.20, 2.00]	<0.01	1.23	[0.96, 1.58]	0.10
Father (ref. = non-father)	-	-	-	1.07	[0.95, 1.20]	0.27	1.00	[0.82, 1.22]	0.99	1.04	[0.87, 1.25]	0.65
Living in regional or remote area (ref. = living in major cities)	-	-	-	1.05	[0.95, 1.15]	0.37	1.19	[1.01, 1.39]	0.03	1.11	[0.95, 1.29]	0.19
IRSD quintile (ref. = first; most disadvantage)												
Second	-	-	-	0.83	[0.73, 0.95]	0.01	0.78	[0.62, 0.99]	0.04	0.78	[0.63, 0.98]	0.03
Third	-	-	-	0.80	[0.70, 0.92]	<0.01	0.92	[0.73, 1.17]	0.50	0.92	[0.73, 1.16]	0.47
Fourth	-	-	-	0.74	[0.65, 0.85]	<0.01	0.79	[0.62, 1.00]	0.05	0.78	[0.61, 0.98]	0.04
Fifth (least disadvantage)	-	-	-	0.67	[0.58, 0.78]	<0.01	0.69	[0.53, 0.89]	0.01	0.77	[0.59, 0.99]	0.04
Social support	-	-	-	-	-	-	0.98	[0.98, 0.98]	<0.01	0.99	[0.98, 0.99]	<0.01
Positive for harmful/hazardous alcohol use (ref. = not positive)	-	-	-	-	-	-	1.23	[1.04, 1.44]	0.01	1.15	[0.98, 1.35]	0.08
Self-reliance	-	-	-	-	-	-	1.14	[1.07, 1.21]	<0.01	1.07	[1.01, 1.14]	0.03
Emotional control	-	-	-	-	-	-	1.05	[0.99, 1.11]	0.11	1.04	[0.99, 1.10]	0.14
Suicidal thoughts in Wave 4 (ref. = no suicidal thoughts)	-	-	-	-	-	-	-	-	-	5.95	[5.03, 7.03]	<0.01

Notes: RR = risk ratio; aRR = adjusted risk ratio; 95% CI = 95% confidence interval; IRSD = Index of Relative Socio-Economic Disadvantage.

[a] Model 1 was unadjusted; model 2 adjusted for age, LGBTQA+ status,[3] Indigenous status, employment status, income, whether a man was a father, region and IRSD quintile; model 3 adjusted for the same variables as model 2 plus social support, harmful alcohol use, and the self-reliance and emotional control masculinity domains; and model 4 adjusted for all variables in model 3 as well as suicidal thoughts from the previous wave (Wave 4). All covariates were taken from Wave 5, except First Nations status (which was constant across waves), masculinity domains, which were taken from Wave 1, and suicidal thoughts in the previous wave, which was from Wave 4.
[b] Disability status, living alone or not, employment status and financial stress all modified the association between recent relationship breakdown and suicidal thoughts in the past 2 weeks. For men without disability: aRR = 1.83, 95% CI [1.45, 2.32], $p < 0.001$; for men with disability: aRR = 0.88, 95% CI [0.50, 1.54], $p = 0.65$; p for interaction = 0.02. For men not living alone: aRR = 1.98, 95% CI [1.53, 2.55], $p < 0.001$; for men living alone: aRR = 1.05, 95% CI [0.65, 1.69], $p = 0.85$; p for interaction = 0.02. For employed men: aRR = 1.84, 95% CI [1.43, 2.38], $p < 0.001$; for unemployed men: aRR = 0.98, 95% CI [0.64, 1.49], $p = 0.92$; p for interaction = 0.01. For men who did not experience financial stress: aRR = 1.93, 95% CI [1.41, 2.63], $p < 0.001$; for men who experienced financial stress: aRR = 1.19, 95% CI [0.86, 1.63], $p = 0.29$; p for interaction = 0.04.
Model 1, n = 12,242; model 2, n = 10,613; model 3, n = 4,969; model 4, n = 4,555.

Source: *Ten to Men* data, unweighted, Waves 1, 4 and 5

3 No intersex (I) people were included in the *Ten to Men* sample. We have included 'L' in the acronym, given the wording used in the *Ten to Men* questionnaire, with 'gay or lesbian' being a response option. Additionally, 22 Wave 5 respondents identified as female.

Table S7: Parameter estimates from fully adjusted multivariable Poisson regression models examining the associations between recent relationship breakdown in 2022 (Wave 4) and suicidal thoughts in the past 2 weeks and suicidal thoughts, plans and attempts in the past 12 months in 2024–2025 (Wave 5)

	Suicidal thoughts, past 2 weeks[a]			Suicidal thoughts, past 12 months[a]			Suicidal plans, past 12 months[a]			Suicide attempts, past 12 months[a]		
	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*
Recent relationship breakdown (ref. = no)[b]	1.07	[0.83, 1.37]	0.61	0.91	[0.61, 1.36]	0.64	0.79	[0.50, 1.24]	0.30	3.69	[1.56, 8.71]	<0.01
Covariates												
Age	0.98	[0.97, 0.99]	<0.01	0.98	[0.96, 0.99]	<0.01	0.96	[0.95, 0.98]	<0.01	0.97	[0.92, 1.03]	0.34
Not male-identifying and/or non-heterosexual (ref. = male identifying and heterosexual)	1.28	[1.00, 1.63]	0.05	1.36	[0.86, 2.17]	0.19	1.94	[1.21, 3.11]	0.01	3.69	[1.05, 12.94]	0.04
Aboriginal and/or Torres Strait Islander (ref. = not Aboriginal and/or Torres Strait Islander)	0.69	[0.41, 1.18]	0.18	0.96	[0.28, 3.21]	0.94	0.48	[0.06, 3.57]	0.47	-	-	-
Unemployed or not in labour force (ref. = employed)	1.26	[1.01, 1.56]	0.04	1.04	[0.69, 1.56]	0.85	1.58	[0.99, 2.53]	0.06	0.94	[0.23, 3.83]	0.93
Annual household income (ref. = $150,000 per year and above)												
$100,000 to $149,999 per year	1.30	[1.04, 1.61]	0.02	1.14	[0.75, 1.72]	0.55	2.27	[1.41, 3.65]	<0.01	1.95	[0.35, 10.87]	0.45
$50,000 to $99,999 per year	1.33	[1.06, 1.66]	0.01	1.30	[0.87, 1.94]	0.20	1.70	[1.04, 2.78]	0.03	4.91	[1.13, 21.35]	0.03
Below $50,000 per year	1.57	[1.22, 2.03]	<0.01	1.68	[1.09, 2.58]	0.02	1.79	[1.01, 3.20]	0.05	9.83	[2.15, 44.92]	<0.01
Father (ref. = non-father)	1.17	[0.96, 1.42]	0.11	1.21	[0.82, 1.78]	0.33	1.38	[0.84, 2.25]	0.20	1.47	[0.43, 5.02]	0.53
Living in regional or remote area (ref. = living in major cities)	1.11	[0.95, 1.29]	0.21	1.44	[1.07, 1.94]	0.02	1.43	[0.98, 2.07]	0.06	0.74	[0.25, 2.22]	0.59
IRSD quintile (ref. = first; most disadvantage)												
Second	0.76	[0.59, 0.96]	0.02	0.62	[0.39, 0.98]	0.04	0.67	[0.39, 1.14]	0.14	0.38	[0.07, 2.20]	0.28
Third	0.77	[0.60, 0.99]	0.04	0.86	[0.56, 1.32]	0.49	0.67	[0.40, 1.12]	0.13	0.91	[0.26, 3.21]	0.88
Fourth	0.78	[0.61, 0.99]	0.04	0.58	[0.35, 0.95]	0.03	0.70	[0.40, 1.24]	0.22	0.14	[0.01, 1.38]	0.09
Fifth (least disadvantage)	0.81	[0.62, 1.07]	0.14	0.57	[0.33, 0.98]	0.04	0.77	[0.43, 1.38]	0.37	1.07	[0.21, 5.39]	0.93
Social support	0.99	[0.99, 0.99]	<0.01	0.99	[0.98, 0.99]	<0.01	0.99	[0.98, 0.99]	<0.01	0.99	[0.97, 1.01]	0.23
Positive for harmful/ hazardous alcohol use (ref. = not positive)	1.11	[0.95, 1.30]	0.20	1.18	[0.88, 1.59]	0.27	0.89	[0.62, 1.27]	0.52	1.54	[0.55, 4.31]	0.41

	Suicidal thoughts, past 2 weeks[a]			Suicidal thoughts, past 12 months[a]			Suicidal plans, past 12 months[a]			Suicide attempts, past 12 months[a]		
	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*
Self-reliance	1.13	[1.06, 1.20]	<0.01	1.09	[0.96, 1.23]	0.17	1.21	[1.05, 1.40]	0.01	1.31	[0.93, 1.83]	0.12
Emotional control	1.05	[1.00, 1.11]	0.07	0.94	[0.85, 1.04]	0.23	1.06	[0.94, 1.20]	0.37	1.21	[0.82, 1.77]	0.34
Past 2-week suicidal thoughts in Wave 4 (ref. = no suicidal thoughts)	6.69	[5.60, 7.99]	<0.01	-	-	-	-	-	-	-	-	-
Past 12-month suicidal thoughts in Wave 4 (ref. = no suicidal thoughts)	-	-	-	8.36	[5.90, 11.86]	<0.01	-	-	-	-	-	-
Past 12-month suicidal plans in Wave 4 (ref. = no suicidal plans)	-	-	-	-	-	-	17.25	[11.97, 24.85]	<0.01	-	-	-
Past 12-month suicide attempts in Wave 4 (ref. = no suicide attempts)	-	-	-	-	-	-	-	-	-	29.09	[8.54, 99.08]	<0.01

Notes: aRR = adjusted risk ratio; 95% CI = 95% confidence interval; IRSD = Index of Relative Socio-Economic Disadvantage.
[a] Models adjusted for age, LGBTQA+ status,[4] Indigenous status (except for suicide attempts model due to small sample sizes), employment status, income, whether a man was a father, region, IRSD quintile, social support, harmful alcohol use, the self-reliance and emotional control masculinity domains, and the same measure of suicidality (thoughts, plans or attempts) from the previous wave (Wave 4). All covariates were taken from Wave 4, except First Nations status (which was constant across waves), and masculinity domains, which were taken from Wave 1.
[b] No factors modified the association between recent relationship breakdown in 2022 and suicidal thoughts or plans in 2024–2025. Interaction analyses were not conducted for suicide attempts due to small sample sizes.
Suicidal thoughts in the past 2 weeks model, *n* = 4,211; suicidal thoughts in the past 12 months model, *n* = 3,699; suicidal plans in the past 12 months model, *n* = 3,700; suicide attempts in the past 12 months model, *n* = 3,736.

Source: *Ten to Men* data, unweighted, Waves 1, 4 and 5

4 No intersex (I) people were included in the *Ten to Men* sample. We have included 'L' in the acronym, given the wording used in the *Ten to Men* questionnaire, with 'gay or lesbian' being a response option. Additionally, 22 Wave 5 respondents identified as female.

Table S8: Parameter estimates from fully adjusted multivariable Poisson regression models examining the associations between recent relationship breakdown in 2020–21 (Wave 3) and suicidal thoughts in the past 2 weeks and suicidal thoughts, plans and attempts in the past 12 months in 2024–2025 (Wave 5)

	Suicidal thoughts, past 2 weeks[a]			Suicidal thoughts, past 12 months[a]			Suicidal plans, past 12 months[a]			Suicide attempts, past 12 months[a]		
	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*
Recent relationship breakdown (ref. = no)	0.72	[0.51, 1.02]	0.07	0.54	[0.30, 0.99]	0.05	0.74	[0.39, 1.39]	0.34	2.84	[0.90, 8.92]	0.07
Covariates												
Age	0.98	[0.98, 0.99]	<0.01	0.98	[0.96, 0.99]	<0.01	0.98	[0.97, 1.00]	0.06	0.96	[0.89, 1.03]	0.24
Not male-identifying and/or non-heterosexual (ref. = male identifying and heterosexual)	1.20	[0.92, 1.57]	0.18	1.37	[0.86, 2.16]	0.18	1.85	[1.10, 3.14]	0.02	2.15	[0.51, 9.07]	0.30
Aboriginal and/or Torres Strait Islander (ref. = not Aboriginal and/or Torres Strait Islander)	0.61	[0.37, 1.01]	0.05	0.60	[0.15, 2.30]	0.45	-	-	-	-	-	-
Unemployed or not in labour force (ref. = employed)	1.16	[0.92, 1.47]	0.22	1.14	[0.70, 1.85]	0.60	1.58	[0.96, 2.60]	0.07	1.24	[0.24, 6.35]	0.80
Annual household income (ref. = $150,000 per year and above)												
$100,000 to $149,999 per year	1.20	[0.95, 1.53]	0.13	0.96	[0.62, 1.51]	0.87	1.71	[1.01, 2.89]	0.05	1.56	[0.41, 5.98]	0.52
$50,000 to $99,999 per year	1.20	[0.95, 1.53]	0.13	1.10	[0.71, 1.71]	0.67	1.38	[0.82, 2.32]	0.23	1.46	[0.34, 6.40]	0.61
Below $50,000 per year	1.19	[0.88, 1.61]	0.25	1.49	[0.86, 2.58]	0.16	0.95	[0.47, 1.92]	0.89	2.94	[0.43, 20.22]	0.27
Father (ref. = non-father)	1.14	[0.94, 1.38]	0.19	1.18	[0.77, 1.79]	0.45	1.15	[0.68, 1.95]	0.60	0.83	[0.18, 3.81]	0.81
Living in regional or remote area (ref. = living in major cities)	1.05	[0.89, 1.24]	0.58	1.31	[0.95, 1.80]	0.10	1.04	[0.69, 1.58]	0.84	0.65	[0.15, 2.79]	0.56
IRSD quintile (ref. = first; most disadvantage)												
Second	0.71	[0.55, 0.92]	0.01	0.68	[0.41, 1.15]	0.15	0.89	[0.51, 1.56]	0.68	0.32	[0.01, 7.12]	0.47
Third	0.85	[0.66, 1.09]	0.19	1.04	[0.64, 1.71]	0.86	0.86	[0.48, 1.54]	0.62	1.70	[0.30, 9.64]	0.55
Fourth	0.78	[0.60, 1.01]	0.06	0.74	[0.42, 1.31]	0.30	1.00	[0.54, 1.86]	1.00	0.57	[0.06, 5.19]	0.62
Fifth (least disadvantage)	0.78	[0.58, 1.04]	0.09	0.48	[0.25, 0.91]	0.03	0.61	[0.30, 1.24]	0.17	1.88	[0.29, 12.25]	0.51
Social support	0.99	[0.99, 0.99]	<0.01	0.99	[0.98, 0.99]	<0.01	0.99	[0.98, 1.00]	0.02	1.00	[0.97, 1.02]	0.75
Positive for harmful/ hazardous alcohol use (ref. = not positive)	0.99	[0.84, 1.18]	0.94	1.26	[0.92, 1.74]	0.16	1.16	[0.80, 1.69]	0.43	0.45	[0.10, 2.12]	0.32

	Suicidal thoughts, past 2 weeks[a]			Suicidal thoughts, past 12 months[a]			Suicidal plans, past 12 months[a]			Suicide attempts, past 12 months[a]		
	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*	aRR	95% CI	*p*
Self-reliance	1.10	[1.02, 1.18]	0.01	1.11	[0.98, 1.26]	0.12	1.23	[1.05, 1.43]	0.01	1.17	[0.77, 1.77]	0.46
Emotional control	1.06	[1.00, 1.12]	0.04	0.94	[0.84, 1.04]	0.23	1.05	[0.92, 1.21]	0.44	1.35	[0.89, 2.06]	0.16
Past 2-week suicidal thoughts in Wave 4 (ref. = no suicidal thoughts)	4.10	[3.22, 5.22]	<0.01	-	-	-	-	-	-	-	-	-
Past 2-week suicidal thoughts in Wave 3 (ref. = no suicidal thoughts)	2.72	[2.14, 3.44]	<0.01	-	-	-	-	-	-	-	-	-
Past 12-month suicidal thoughts in Wave 4 (ref. = no suicidal thoughts)	-	-	-	5.35	[3.29, 8.70]	<0.01	-	-	-	-	-	-
Past 12-month suicidal thoughts in Wave 3 (ref. = no suicidal thoughts)	-	-	-	2.89	[1.79, 4.66]	<0.01	-	-	-	-	-	-
Past 12-month suicidal plans in Wave 4 (ref. = no suicidal plans)	-	-	-	-	-	-	9.34	[5.39, 16.18]	<0.01	-	-	-
Past 12-month suicidal plans in Wave 3 (ref. = no suicidal plans)	-	-	-	-	-	-	3.11	[1.81, 5.36]	<0.01	-	-	-
Past 12-month suicide attempts in Wave 4 (ref. = no suicide attempts)	-	-	-	-	-	-	-	-	-	8.31	[1.28, 53.99]	0.03
Past 12-month suicide attempts in Wave 3 (ref. = no suicide attempts)	-	-	-	-	-	-	-	-	-	34.36	[4.35, 271.43]	<0.01

Notes: aRR = adjusted risk ratio; 95% CI = 95% confidence interval; IRSD = Index of Relative Socio-Economic Disadvantage.
[a] Models adjusted for age, LGBTQA+ status,[5] Indigenous status, employment status, income, whether a man was a father, region, IRSD quintile, social support, harmful alcohol use, the self-reliance and emotional control masculinity domains, and the same measure of suicidality (thoughts, plans or attempts) from Waves 3 and 4. All covariates were taken from Wave 3, except First Nations status (which was constant across waves), and masculinity domains, which were taken from Wave 1. In fully adjusted models for plans and attempts, we excluded First Nations status due to sample size constraints for this variable.
Suicidal thoughts in the past 2 weeks model, *n* = 4,049; suicidal thoughts in the past 12 months model, *n* = 3,386; suicidal plans in the past 12 months model; *n* = 3,403; suicide attempts in the past 12 months model, *n* = 3,427.

Source: *Ten to Men* data, unweighted, Waves 1, 3, 4 and 5

5 No intersex (I) people were included in the *Ten to Men* sample. We have included 'L' in the acronym, given the wording used in the *Ten to Men* questionnaire, with 'gay or lesbian' being a response option. Additionally, 22 Wave 5 respondents identified as female.

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