

# Domestic violence, risk factors and health

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Australian Longitudinal Study on Women's Health

Research Centre for Generational Health and Ageing

University of Newcastle

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Australian Longitudinal Study  
on Women's Health

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# Introduction

The Australian Government Department of Social Services engaged the Research Centre for Generational Health and Ageing, University of Newcastle in May 2018 to investigate domestic violence (DV) using data collected by the Australian Longitudinal Study on Women's Health (ALSWH).

According to the United Nations, violence against women is:

*“any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life” [1].*

Globally, estimates suggest that approximately one third of all women who have been in a relationship have experienced DV [2]. In Australia, it is estimated that 1.6 million Australian women have experienced violence by a partner, since the age of 15 [3]. Typically, this violence is perpetrated by a previous, rather than current, partner and is often physical or sexual in nature [3]. For the purposes of this report, DV has been defined conservatively as ever having a violent relationship and also by more inclusive behavioural measures. Details of the data, measures used and analysis techniques are covered below (p. 5).

Sections 1 to 3 of this report will present findings that address the following:

1. The health and wellbeing of women from culturally and linguistically diverse (CALD) and non-CALD backgrounds who do and do not experience DV;
2. The health and wellbeing of women with and without a disability who do and do not experience DV; and
3. The factors that may contribute to the risk of experiencing DV.

# Data and technical notes

## Sample

ALSWH includes over 57,000 participants in four cohorts born 1989-95, 1973-78, 1946-51, and 1921-26. The 1973-78, 1946-51, and 1921-26 cohorts were randomly selected from the Medicare database and recruited via mailed surveys in 1996 [4]. The 1989-95 cohort was recruited in 2012-13 via open recruitment [5]. The cohorts were compared with women of the same age in the Census and found to be broadly representative of Australian women of the same age, with some over-representation of tertiary educated women and some underrepresentation of women from non-English speaking backgrounds [6, 7]. For the following analyses, participants were sampled from the 1989-95, 1973-78 and 1946-51 cohorts. Participants in the 1989-95 cohort have been surveyed annually since 2013, and participants from the 1973-78 and 1946-51 cohorts have been surveyed approximately every three years since 1996. Participants provided informed consent when they enrolled in ALSWH and the study has approval from the Human Research Ethics Committees of the Universities of Newcastle and Queensland, as well as the Australian Government Department of Health.

## Measures

### Domestic violence

Two measures of DV were used, including a conservative measure (violent relationship) and a more inclusive behavioural measure (partner abusive act).

#### Violent relationship

For all three cohorts, participants were asked '*Have you ever been in a violent relationship with a partner/spouse?*' with response options 'Yes' and 'No.' A woman was classified as having ever experienced a violent relationship from the first survey in which she indicated an affirmative response. This question was asked at all surveys for the 1989-95, 1973-78 and 1946-51 cohorts, with the exception of surveys 2 and 3 for women born 1946-51. Data from all available surveys were included in Section 1 and 2 of this report. Data from all surveys for the 1989-95 and 1973-78 cohorts were used in Section 3 of this report.

### Partner abusive act

For the 1973-78 cohort, information regarding specific experiences of DV was captured using the Community Composite Abuse Scale, which comprises 10 physical abuse items, 13 emotional abuse items, 4 harassment abuse items and 1 sexual abuse item [8]. Using the scale, a dichotomous variable was derived to indicate the presence of any act of partner abuse. A woman was classified as having experienced an act of partner abuse from the first survey in which she indicated an affirmative response to any of the Community Composite Abuse Scale items. The Community Composite Abuse Scale was asked in surveys 4, 5, 6 and 7 of the 1973-78 cohort. Data from all surveys were used for Sections 1-3 of this report.

For the 1989-95 cohort, information regarding specific experiences of DV was captured using the abbreviated Community Composite Abuse Scale, which comprises 3 physical abuse items, 6 emotional abuse items, 2 harassment items and 1 sexual abuse item. Using the scale, a dichotomous variable was derived to indicate the presence of any act of partner abuse. A woman was classified as having experienced an act of partner abuse from the first survey where she indicated an affirmative response to any of the abbreviated Community Composite Abuse Scale items. The abbreviated Community Composite Abuse Scale was asked of the 1989-95 cohort in all surveys. Responses from survey 1 were not used in this report for technical reasons. Data from all other surveys were used in Sections 1-3 of this report.

### Cultural and linguistic diversity

Two measures were used to identify data provided by women from a culturally and linguistically diverse (CALD) background. These measures captured information on country of birth and language. Women were classified as having a CALD background if: (i) they indicated that they were born in a country where English was not the national language (i.e. non-English speaking); or (ii) they did not speak fluent English; and/or (iii) they usually spoke a language at home which was not English. Data from all available surveys were used in Section 1 of this report.

### Country of birth

All three cohorts were asked about their country of birth. Responses were categorised to indicate countries that are English speaking versus those that are not. This measure was included in survey 1 for the 1946-51 and 1973-78 cohorts and survey 2 of the 1989-95 cohort. These data were used in Section 1 of this report.

## Language

All three cohorts were asked if they spoke fluent English, as well as the language they spoke at home. These measures were included in survey 1 for all three cohorts. These data were used in Section 1 of this report.

## Disability

For all three cohorts, the question “*Do you regularly need help with daily tasks because of a long-term illness or disability?*” with response options ‘Yes’ and ‘No’ was used to determine disability status. If a woman indicated an affirmative response to this question, she was classified as having a disability at that survey for the 1973-78 and 1946-51 cohorts, who were asked this question in all surveys. The item and was included in survey 1 only for the 1989-95 cohort. All available data were used in Section 2 of this report.

## Physical health

### General health

For all three cohorts, the question ‘*In general, would you say your health is*’ was included with response options ‘Excellent’, ‘Very good’, ‘Good’, ‘Fair’, and ‘Poor.’ Responses were collapsed into ‘Excellent/Very good’, ‘Good’ and ‘Fair/Poor.’ This item is the first question of the Short Form 36-item instrument (SF-36), and was used as an overall assessment of general health. This measure was included in all surveys for all cohorts. Data from all surveys for all three cohorts were used in Section 1 and 2 of this report. General health data at survey 1 of the 1989-95 and 1973-78 cohorts were used as a baseline predictor in Section 3 of this report.

### Physical functioning

For the 1973-78 and 1946-51 cohorts, the SF-36 Physical Functioning subscale was used. Subscale scores were standardised to range from 0-100, with a higher score indicating better physical functioning [9, 10]. This measure was included in all surveys for the 1973-78 and 1946-51 cohorts. Data from all surveys were used in Section 1 and 2 of this report.

## Mental health

### Psychological distress

For the 1989-95 cohort, the Kessler Psychological Distress Scale (K10) was used, which measures psychological distress over the last 30 days [11]. K10 scores range from 10 to 50, with higher scores indicating higher levels of psychological distress. This measure was included in all surveys for the 1989-95 cohort. Data from all surveys were included in Section



1 and 2 of this report. For Section 3 of this report, K10 scores from survey 1 were categorised into 'Low/moderate' (10-21), 'High' (22-29) and 'Very high' (30-50) and used as baseline predictors.

### Mental health

For the 1973-78 and 1946-51 cohorts, the SF-36 Mental Health subscale was used. Subscale scores were standardised to range from 0-100, with a higher scores indicating better mental health [9, 10]. This measure was included in all surveys for the 1973-78 and 1946-51 cohorts. Data from all surveys for both cohorts were included in Section 1 and 2 of this report. For Section 3, data from survey 1 of the 1973-78 cohort were categorised into poor mental health (less than or equal to 52) and good mental health (greater than 52), with the resulting variable used as a predictor.

### Stress

For all three cohorts, mean scores for perceived stress were calculated using the Perceived Stress Questionnaire for Young Women [12]. This measure includes items from specific life domains: own health; health of other family members; work/employment; living arrangements; study; money; relationship with parents; relationship with partner/spouse; relationship with children/motherhood; relationship with other family members; and relationships with boyfriend/girlfriend. This question was included in all surveys for all cohorts, however, the domains included differed between cohorts.

## Childhood domestic violence risk factors

### Adversity in childhood

The Adverse Childhood Experiences Scale (ACES) comprises eight domains in two major themes: abuse to the individual and household dysfunction [13]. The first theme is about individual childhood abuse experiences including: psychological abuse (2 items); physical abuse (2 items); and childhood sexual abuse (4 items). The second theme is about household dysfunction during childhood and includes questions about: household substance abuse (2 items); household mental illness (2 items); household criminal behaviour (1 item); witnessing mother abused (4 items); and witnessing father abused (4 items). Each domain was classified as affirmative if any of the individual items within the domain were indicated. The sum of the domain scores provided a total ACES score, where a total ACES score of 0 denotes that no ACES domains were indicated and a total ACES score of 8 denotes that all ACES domains were indicated. The ACES was included in survey 3 of the 1989-95 cohort and survey 7 of the 1973-78 cohort. These data were used in Section 3 of this report.

### Divorced parents

For the 1989-95 and 1973-78 cohorts, participants were asked '*During your childhood, did your parents divorce or permanently separate?*' with response options 'Yes' and 'No.' This item was included in survey 3 of the 1989-95 cohort and survey 1 for the 1973-78 cohort. These data were used in Section 3 of this report.

### Parents on social security

For the 1989-95 cohort, participants were asked '*During your childhood, did your mother ever receive government social security income?*' and '*During your childhood, did your father ever receive government social security income?*' with response options 'Yes', 'No', and 'Don't know.' This item was included in survey 3 of the 1989-95 cohort. These data were used in Section 3 of this report.

### Unemployed parents

For the 1989-95 cohort, participants were asked '*During your childhood, was your father ever unemployed for 6 months or longer?*' and '*During your childhood, was your mother ever unemployed for 6 months or longer?*' with response options 'Yes', 'No', and 'Don't know'. This item was included in survey 3 of the 1989-95 cohort. These data were used in Section 3 of this report.

### Fostered/adopted

For the 1989-95 cohort, participants were asked '*During your childhood, were you ever adopted or fostered?*' with response options 'Yes' and 'No.' This item was included in survey 3 of the 1989-95 cohort. These data were used in Section 3 of this report.

### Youth allowance

For the 1989-95 cohort, participants were asked '*During your childhood, did you ever receive youth allowance while you were at school?*' with response options 'Yes' and 'No.' This item was included in survey 3 of the 1989-95 cohort. These data were used in Section 3 of this report.

### Absent from school

For the 1989-95 cohort, participants were asked '*During your childhood, were you ever away from school for more than one month at a time due to illness or injury?*' with response options 'Yes' and 'No'. This item was included in survey 3 of the 1989-95 cohort. These data were used in Section 3 of this report.

## Young adult domestic violence risk factors

### Income management

For the 1989-95 and 1973-78 cohorts, participants were asked '*How do you manage on the income you have available?*' with response options 'It is impossible', 'It is difficult all the time', 'It is difficult some of the time', 'It is not too bad', and 'It is easy.' These response options were collapsed into 'Easy/Not too difficult', 'Difficult some of the time', and 'Impossible/Difficult all the time.' This question was included in all surveys for the 1989-95 and 1973-78 cohorts, except survey 2 of the 1973-78 cohort. Income management at survey 1 was used as a baseline predictor in Section 3 of this report.

### Education

For the 1989-95 and 1973-78 cohorts, participants were asked '*What is the highest level of education you have completed?*' with response options 'Year 10 or below', 'Year 11 or equivalent', 'Year 12 or equivalent', 'Certificate I / II', 'Certificate III / IV', 'Advanced diploma / Diploma', 'Bachelor degree', 'Graduate diploma / Graduate certificate', and 'Postgraduate degree.' These response options were collapsed into 'University degree or higher', 'Trade / Certificate / Diploma', and 'Year 12 or less.' This item was included in all surveys for the 1989-95 and 1973-78 cohorts. Education at survey 1 was used as a baseline predictor in Section 3 of this report.

### Area of residence

For each participant, residential postcode was classified according to the proximity to major infrastructure services using ARIA+ scores, and were subsequently grouped into 'Major city', 'Inner regional area', and 'Outer regional/Rural/Remote.' Area of residence at survey 1 was used as a baseline predictor in Section 3 of this report.

### Health

Psychological distress (1989-95 cohort), mental health (1973-78 cohort) and general health (1989-95 and 1973-78 cohorts) were measured as described above and used as baseline predictors in Section 3 of this report.

# Section 1: Domestic violence and cultural and linguistic diversity

## Background

Although DV impacts women across the sociodemographic spectrum, research has shown that some sociodemographic factors are consistently associated with DV [14]. Cultural and linguistic diversity has been suggested as a potential risk factor for DV, however it is difficult to estimate risk given suggestions that women from CALD backgrounds might be less likely to report DV, or to participate in research examining experiences of violence [15]. The research and data gaps in Australia in areas of cultural and linguistic diversity and experiences of violence point to the need for further research in this area.

Women from CALD backgrounds are at risk of experiencing DV. However, given the diversity of women from CALD backgrounds, understanding their experiences of DV is difficult and little Australian research on the topic exists. Moreover, cultural and social norms are unique to particular cultural groups, and in some cases, violence against women is tolerated or accepted within the community [16]. For example, in the 2013 National Community Attitudes towards Violence Against Women Survey, people from countries where English was not the main language were more likely to endorse victim-blaming and attitudes justifying and excusing violence against women [17].

The 2016 Australian Personal Safety Survey found that women from CALD backgrounds reported experiencing violence at lower rates than those from non-CALD backgrounds [3]. The proportion of women who had experienced violence since the age of 15 was estimated at 41% for women born in Australia or an English-speaking country, compared with 23% of those born in a non-English speaking country. Of women who spoke English as their first language, 41% reported experiencing violence since the age of 15, compared with 23% of those who spoke a language other than English. Similarly, 40% of women who spoke English as their main language experienced violence since the age of 15, compared with 17% of those whose main language was not English [3].

Concerns regarding the ability to collect data among women who do not speak English and who are of lower socioeconomic status suggests potential limitations with Australian Personal Safety Survey data [14, 18]. These factors make it difficult to assess the prevalence of DV among CALD women and point to the need to collect data from many sources.

Despite these caveats, particular factors unique to CALD women may increase their risk of experiencing DV. Women who are migrants or refugees have been shown to be at particular risk of DV, where the difficulties inherent in moving to and settling into a new country, as well as the potential loss of social networks and economic independence, lack of knowledge about support systems and fear of deportation if DV is reported compound the risk of DV [16]. In Australia, concerns around language barriers, particularly regarding understanding legal rights and accessing support services, have been highlighted as key issues for CALD women who do not speak English and who have experienced DV [19]. Others have highlighted the cultural norms underscoring CALD women's experiences of violence, including family networks and structures that present significant barriers to help-seeking or leaving a violent relationship [20]. Other research has highlighted the difficulties in defining DV cross-culturally, and the authors emphasised the diversity of cultural conceptualisations of what might constitute DV [21].

Although it is clear that DV has a persistent adverse impact on mental and physical health [22], there has been little examination into the impact of these experiences among women from CALD backgrounds. A systematic review examining depression in the context of intimate partner violence among CALD women found mixed results [16], underscoring the need for more research in this area.

## Aims

This analysis of ALSWH data will contribute to current knowledge in this area. Specifically, these analyses aim to examine:

1. The physical health of women by CALD background and DV status;
2. The mental health of women by CALD background and DV status; and
3. The stress levels of women by CALD background and DV status.

Data from ALSWH cohorts born 1989-95, 1973-78, and 1946-51 were used to address these aims.

## Results

### 1.1 Prevalence of domestic violence by CALD background status

In the 1989-95 and 1973-78 cohorts, women from a CALD background were slightly less likely to report having a violent relationship or experiencing a partner abusive act than women from a non-CALD background (see Appendix 1). In the 1989-95 cohort, 8-17% of women from a CALD background reported a violent relationship, compared to 13-21% of women from a non-CALD background. In the 1973-78 cohort, 9-21% of women from a CALD background reported a violent relationship, compared with 12-24% of women from a non-CALD background. The proportion of women from the 1946-51 cohort who reported having a violent relationship was similar for women from CALD and non-CALD backgrounds (14-23% and 17-22%, respectively).

In the 1989-95 cohort, women from a CALD background were less likely to report having experienced a partner abusive act than women from a non-CALD background (37-49% and 47-59%, respectively). The proportion of women from the 1973-78 cohort who reported having experienced a partner abusive act was similar for women from CALD and non-CALD backgrounds (30-51% and 25-53%, respectively). As the number of women from a CALD background was low in the 1989-95 cohort (n=797), the results should be interpreted with caution. There was a larger number of women from CALD backgrounds in the 1973-78 (n=1356) and 1946-51 (n=1520) cohorts, so these numbers are sufficient to provide an indication of health among women by CALD and DV status.

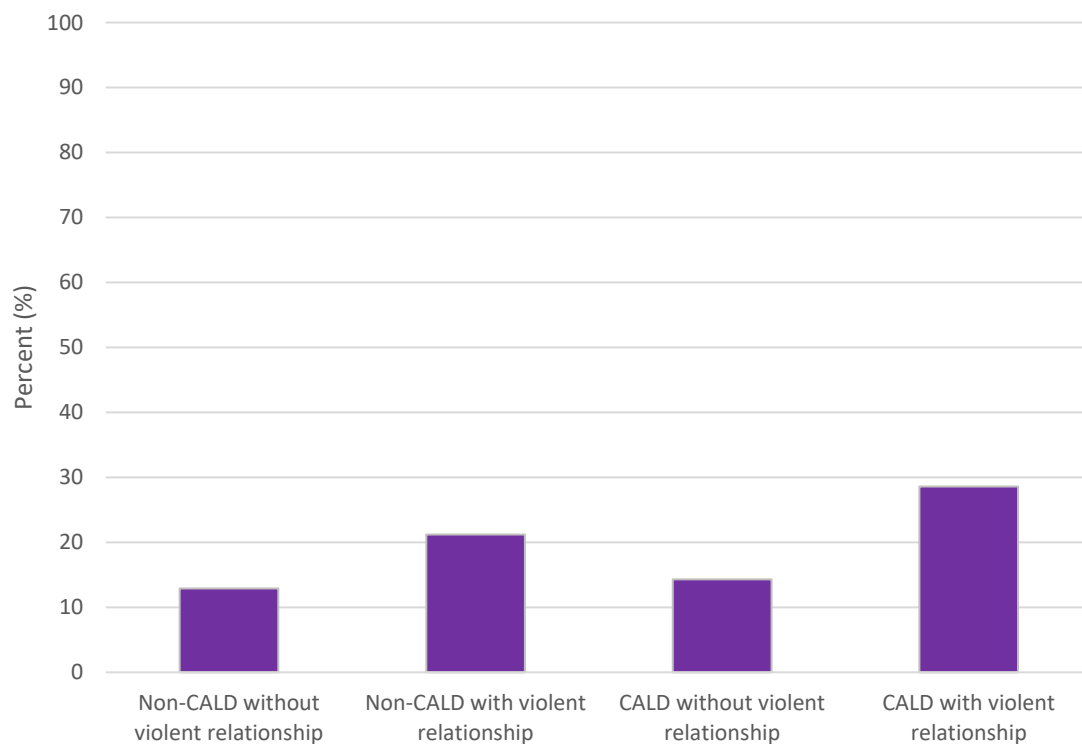
### 1.2 Physical health

#### General health

For each cohort, general health data from the most recent survey are presented by CALD and DV status (Figures 1-5).

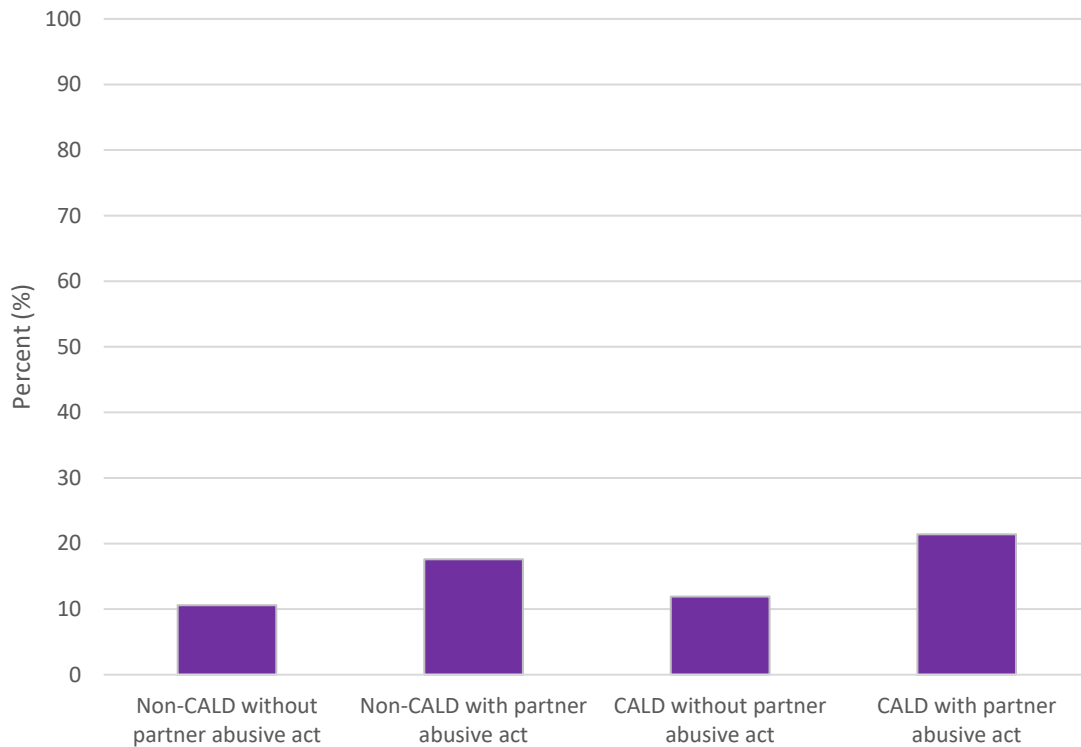
### 1989-95 cohort

**Figure 1 Poor/fair general health of women aged 21-26 in 2016 by CALD background status and violent relationship status**



For women with a CALD background from the 1989-95 cohort, poor health was reported by 14% of women with no history of a violent relationship, compared with 29% of women with a history of a violent relationship (Figure 1). This difference of 15% is larger than the same comparison among women from non-CALD backgrounds, where 13% of those who had never had a violent relationship reported poor health, compared with 21% who had a violent relationship, a difference of 8%.

**Figure 2 Poor/fair general health of women aged 21-26 in 2016 by CALD background status and having experienced a partner abusive act**

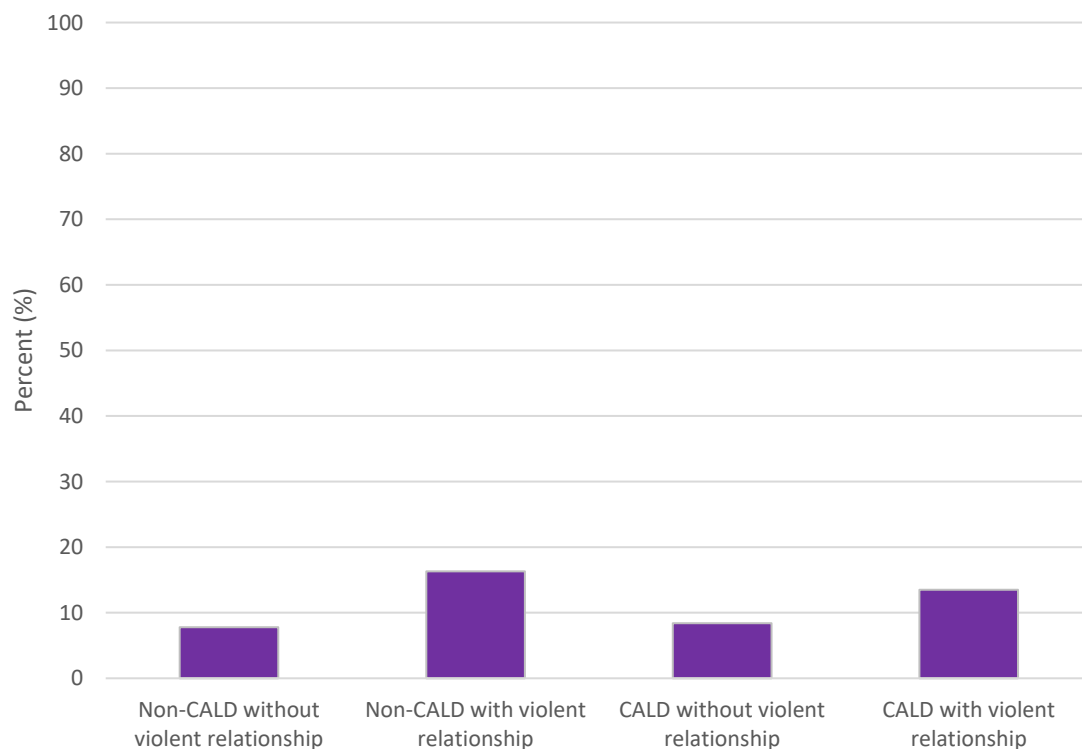


For women with a CALD background from the 1989-95 cohort, poor health was reported by 12% of women who had not reported experiencing a partner abusive act, compared with 21% of women who had reported experiencing a partner abusive act, a difference of 9% (Figure 2). A similar difference exists when comparing women from non-CALD backgrounds, where 11% of those who had not experienced a partner abusive act reported poor health, compared with 18% who had experienced a partner abusive act, a difference of 7%.



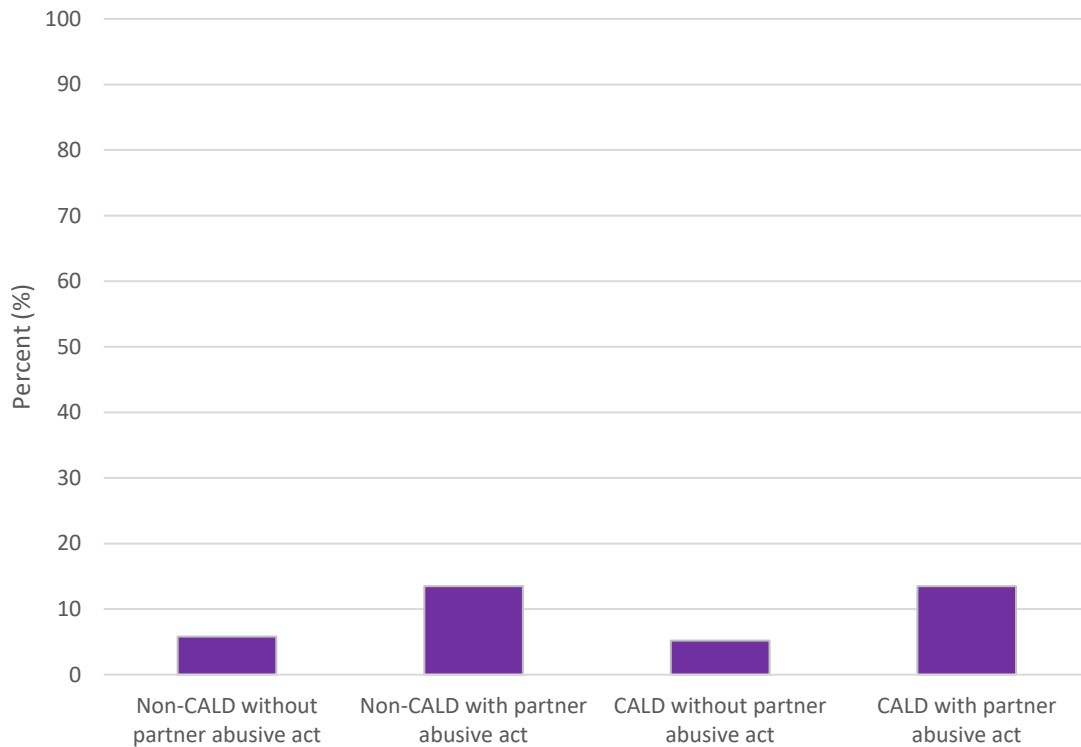
### 1973-78 cohort

**Figure 3 Poor/fair general health of women aged 37-42 in 2015 by CALD background status and violent relationship status**



For women with a CALD background from the 1973-78 cohort, those with a history of a violent relationship were slightly more likely to report poor health than women with no history of a violent relationship (14% versus 8%, respectively; Figure 3). This difference of 6% is slightly smaller than the same comparison among women from non-CALD backgrounds, where 8% of those who had never had a violent relationship reported poor health, compared with 16% who had a violent relationship, a difference of 8%.

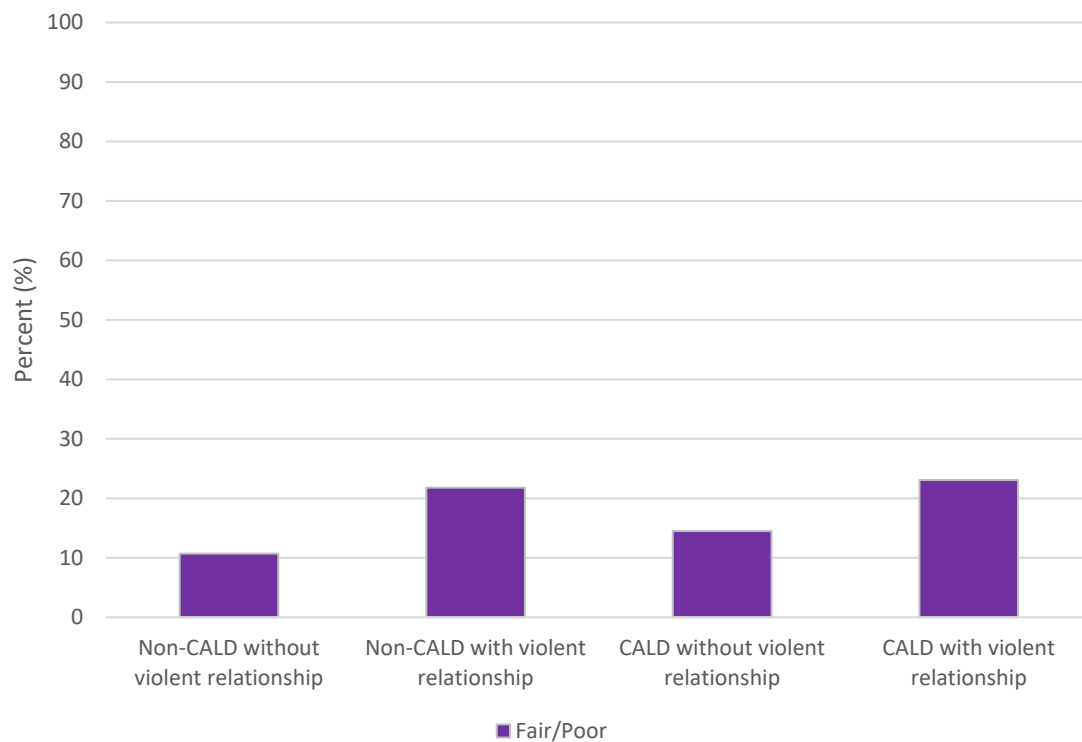
**Figure 4 Poor/fair general health of women aged 37-42 in 2015 by CALD background status and having experienced a partner abusive act**



For women with a CALD background from the 1973-78 cohort, poor health was reported by 5% of those who had not reported experiencing a partner abusive act, compared with 14% of women who had reported experiencing a partner abusive act, a difference of 9% (Figure 4). This was consistent for women from a non-CALD background who had and had not experienced a partner abusive act (14% and 6%, respectively), where there was a difference of 8%.

## 1946-51 cohort

**Figure 5 Poor/fair general health of women aged 65-70 in 2016 by CALD background status and violent relationship status**



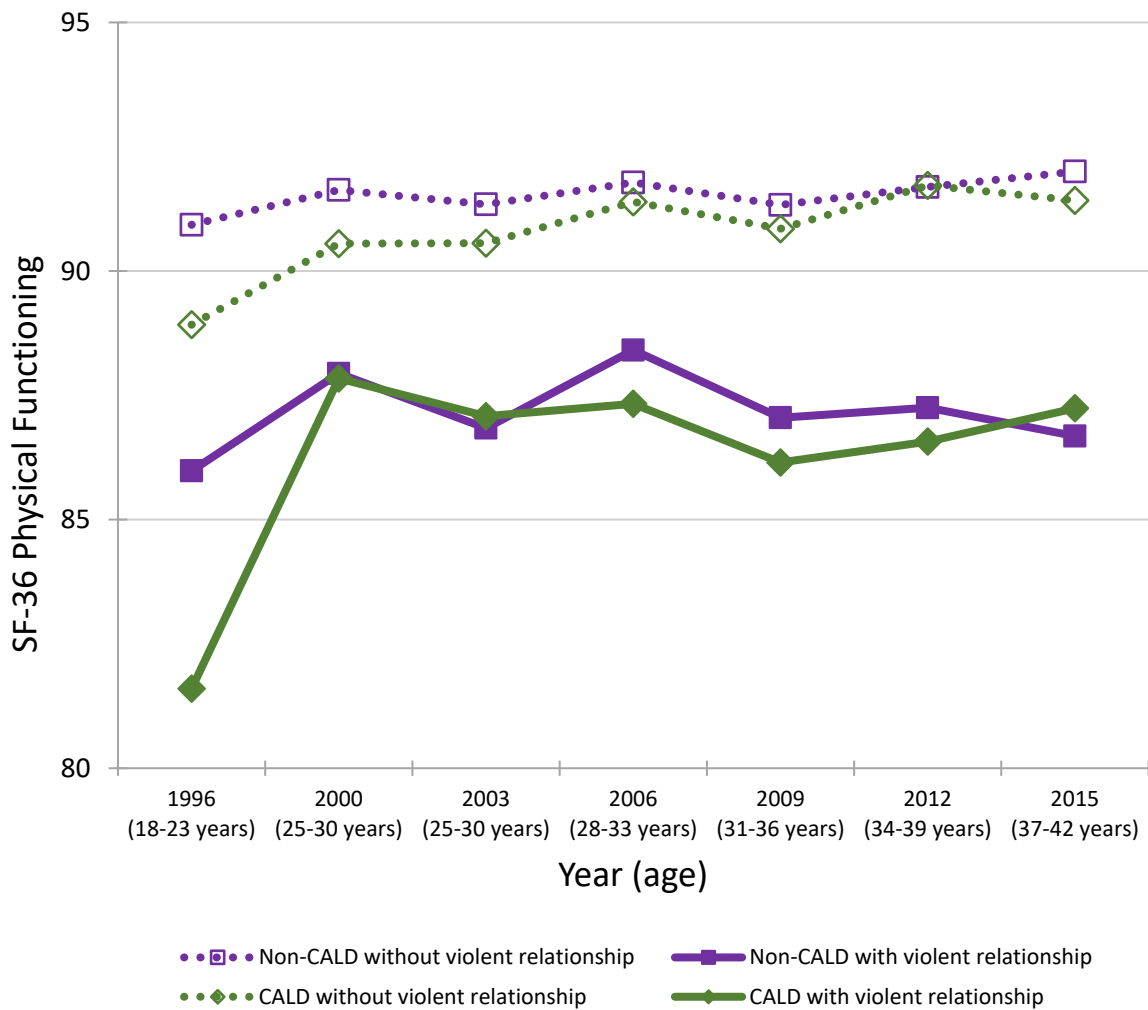
For women with a CALD background from the 1946-51 cohort, poor health was reported by 15% of those with no history of a violent relationship compared with 23% of women with a history of a violent relationship, a difference of 8% (Figure 5). This is similar to the same comparison among women from non-CALD backgrounds, where 11% of those who had never had a violent relationship reported poor health compared with 22% who had a violent relationship, a difference of 11%.

## Physical functioning

Physical functioning was measured using the physical functioning subscale of the SF-36, where higher scores reflect better physical functioning. Data on physical functioning were available for the 1973-78 and 1946-51 cohorts and are presented by CALD background status for each survey across the study period for which DV data were available (Figures 6-8).

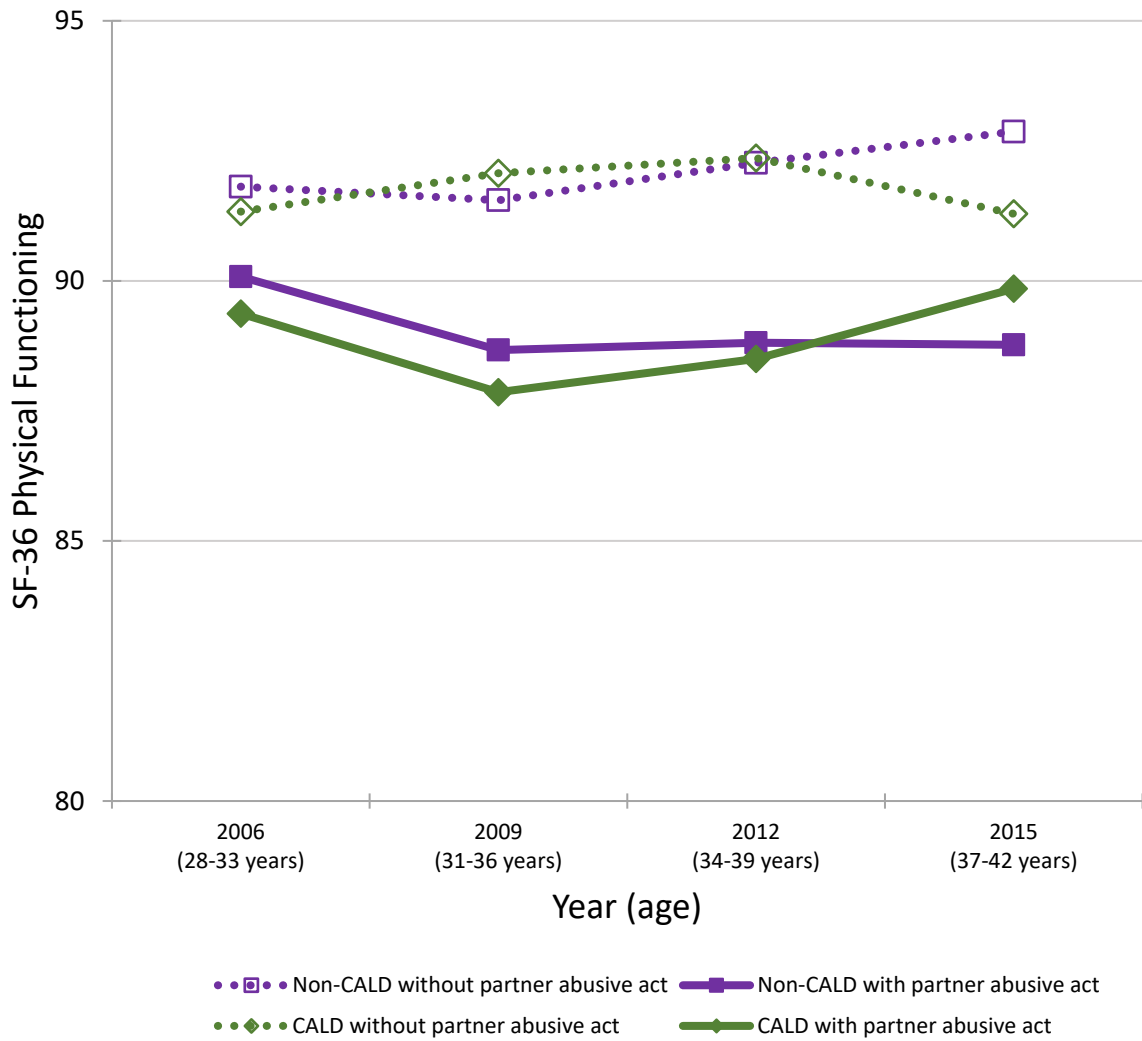
1973-78 cohort

Figure 6 Physical functioning across surveys for women born 1973-78 by CALD background status and violent relationship status



Women who reported having a violent relationship had poorer physical functioning than women who did not report this experience, regardless of CALD background status (Figure 6). At baseline in 1996, among women who reported having a violent relationship, women from a CALD background had worse physical functioning than women from a non-CALD background. However, there were minimal differences between these two groups after the baseline survey.

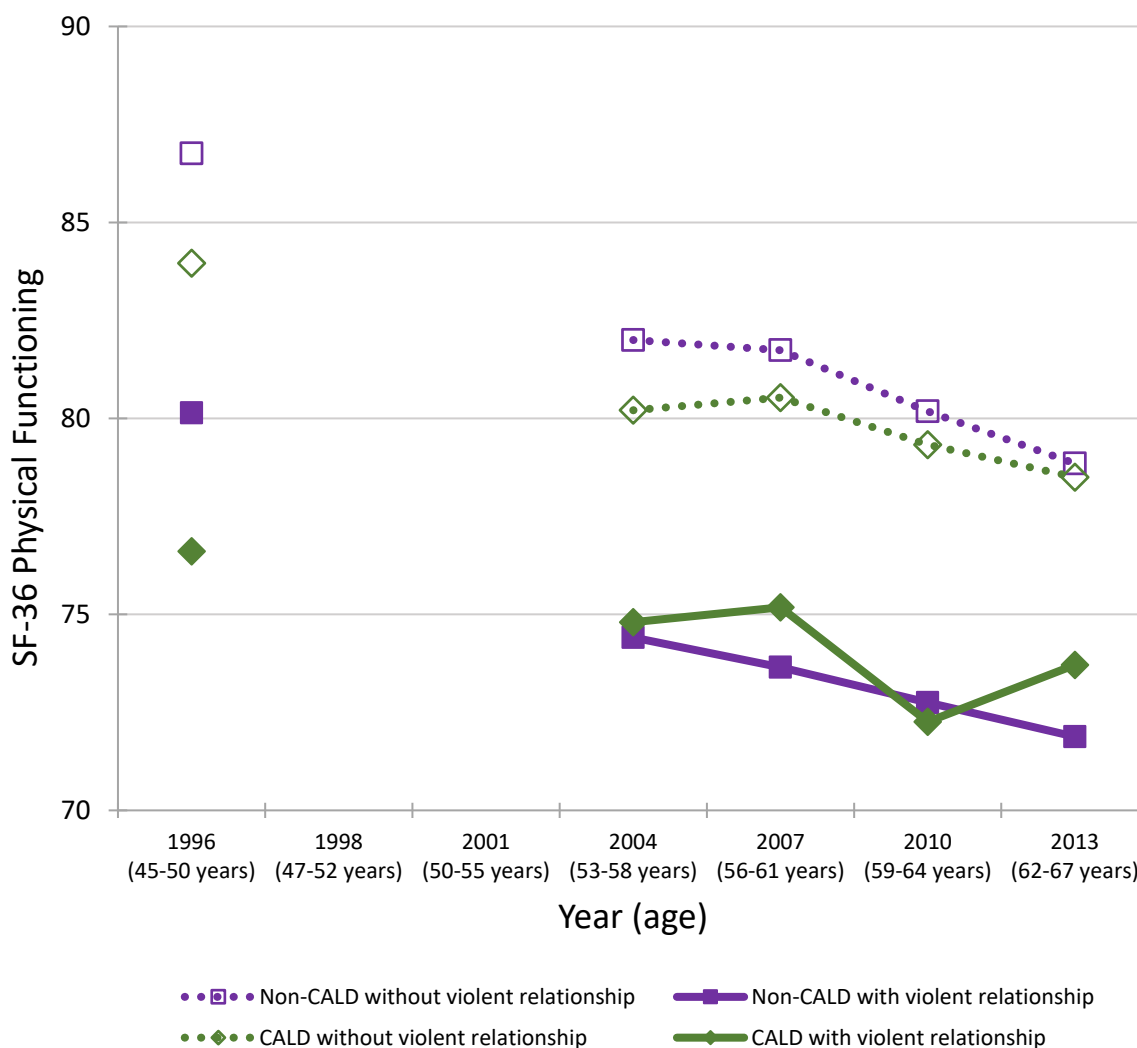
**Figure 7 Physical functioning across surveys for women born 1973-78 by CALD background status and having experienced a partner abusive act**



Women who reported having experienced a partner abusive act had slightly poorer physical functioning than women who did not report this experience, regardless of CALD background status (Figure 7). Where women reported having experienced a partner abusive act, there was little difference in physical functioning between women from CALD and non-CALD backgrounds.

### 1946-51 cohort

**Figure 8 Physical functioning from 1996 to 2016 for women born 1946-51 by CALD background status and violent relationship status**



On average, physical functioning deteriorated over the study period for women born 1946-51 (Figure 8). Women who reported having a violent relationship had poorer physical functioning than women who did not report this experience, regardless of CALD background status. Where women reported having a violent relationship, there was little difference between women from CALD and non-CALD backgrounds with regard to physical functioning.

### 1.3 Mental health

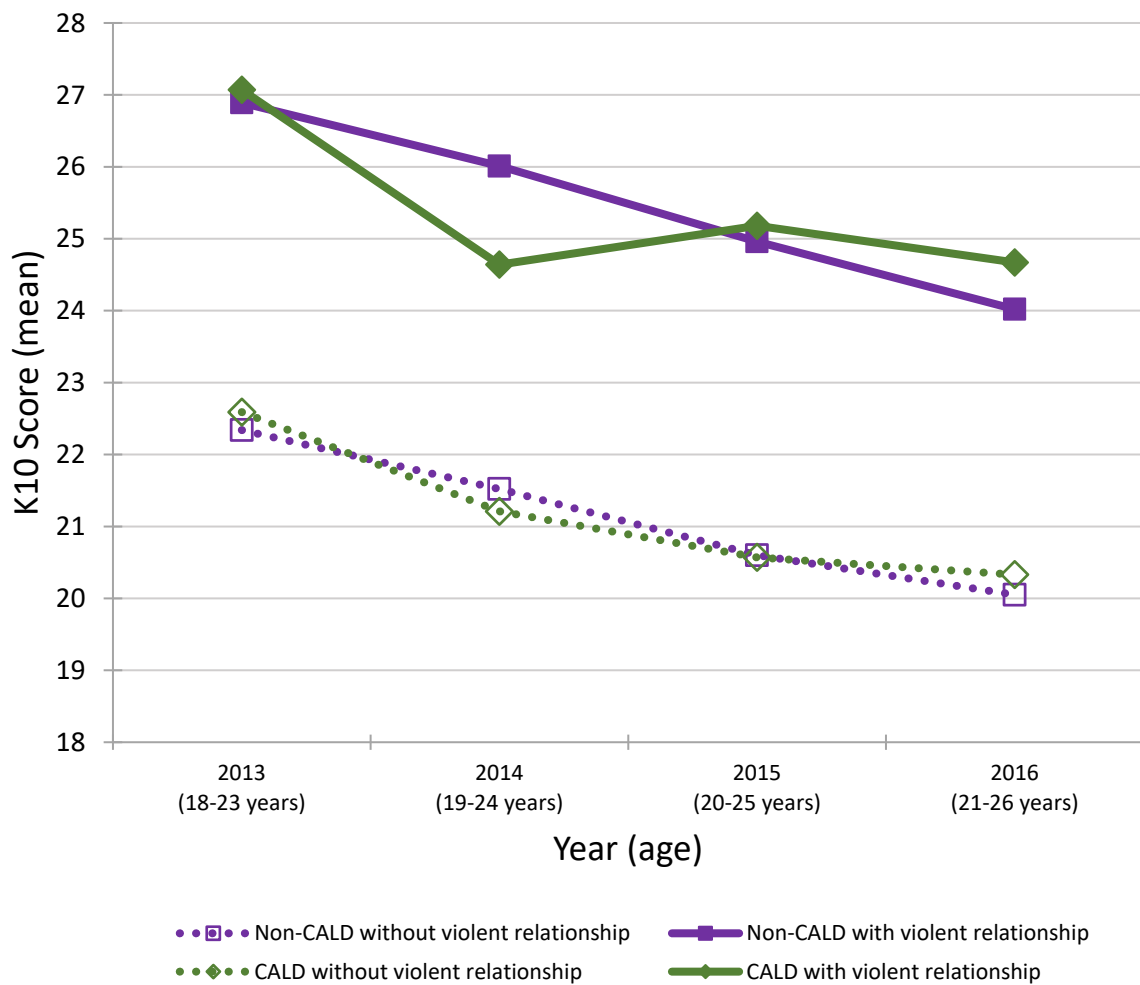
Psychological distress was measured in the 1989-95 cohort using the K10, where higher scores reflect higher levels of psychological distress. Mental health among the 1973-78 and 1946-51 cohorts was measured by the SF-36 mental health subscale, where higher scores reflect better mental health. Mental health measures are presented by CALD background

status for each survey across the study period for which DV data were available (Figures 9-13).

## Psychological distress

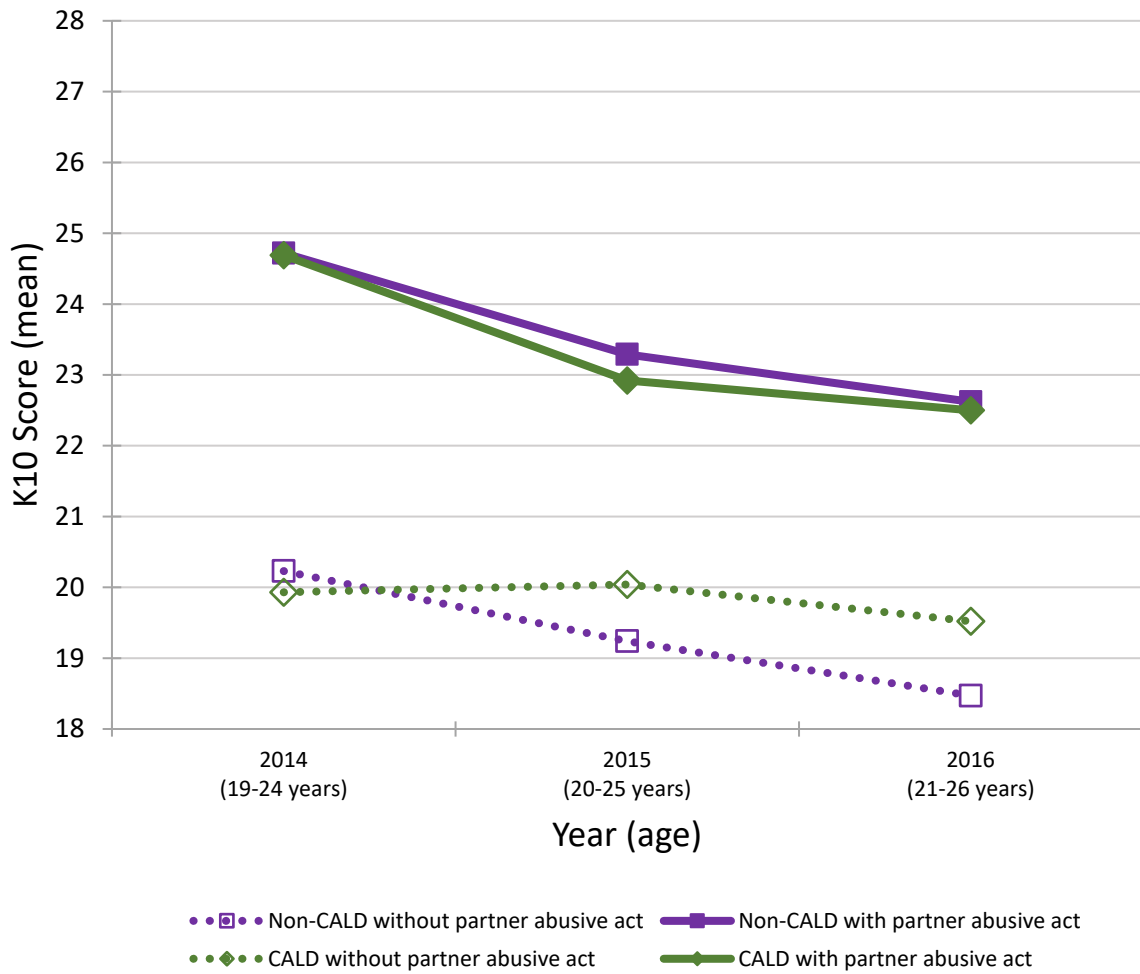
### 1989-95 cohort

**Figure 9 Psychological distress across surveys for women born 1989-95 by CALD background status and violent relationship status**



Women who reported having a violent relationship had much higher levels of psychological distress than women who did not report this experience, regardless of CALD background status (Figure 9). Where women reported having a violent relationship, there was little difference between women from CALD and non-CALD backgrounds with regard to psychological distress.

**Figure 10 Psychological distress across surveys for women born 1989-95 by CALD background status and having experienced a partner abusive act**



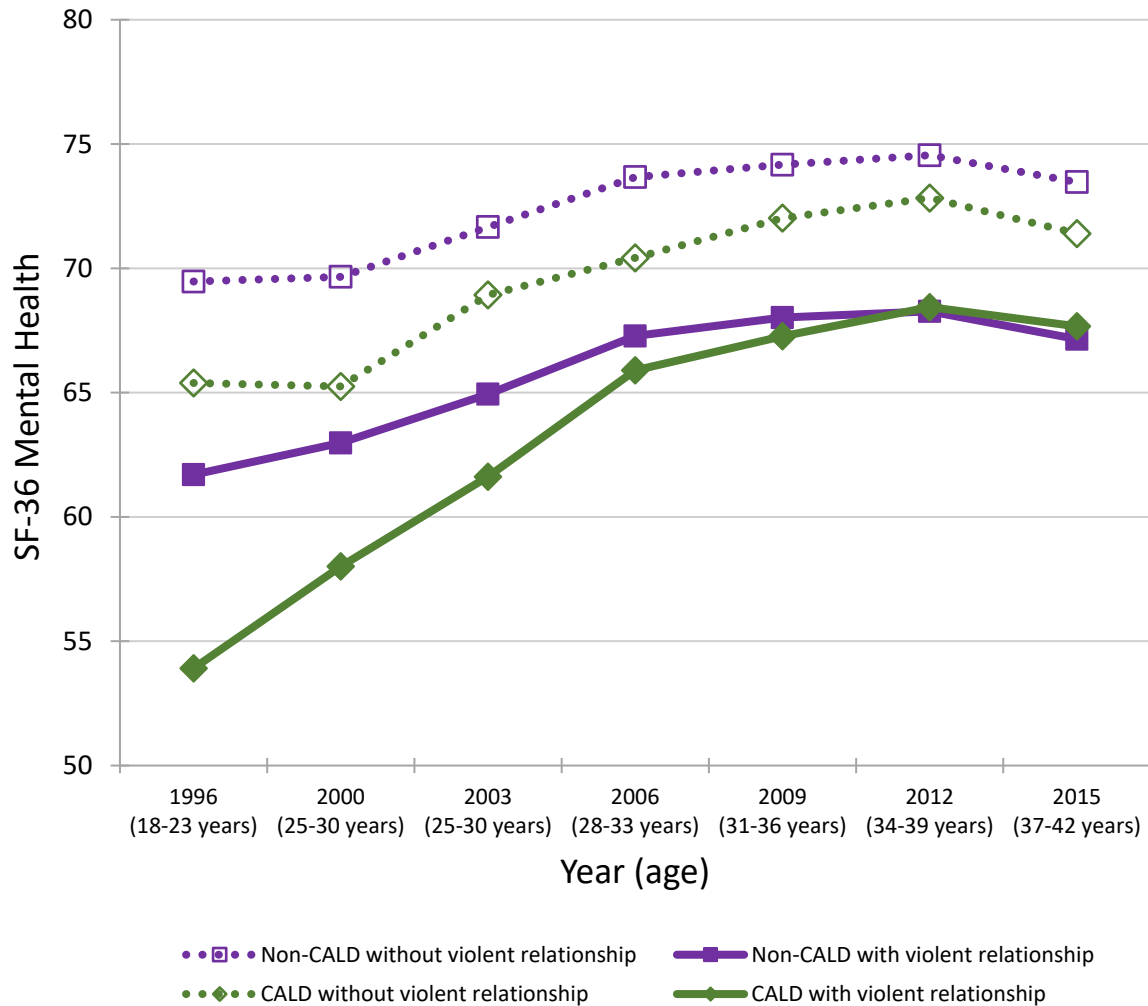
Women from the 1989-95 cohort who reported having experienced a partner abusive act had much higher psychological distress than women who did not report this experience, regardless of CALD background status (Figure 10). Where women reported having experienced a partner abusive act, there was little difference between women from CALD and non-CALD backgrounds with regard to psychological distress.



## Mental health

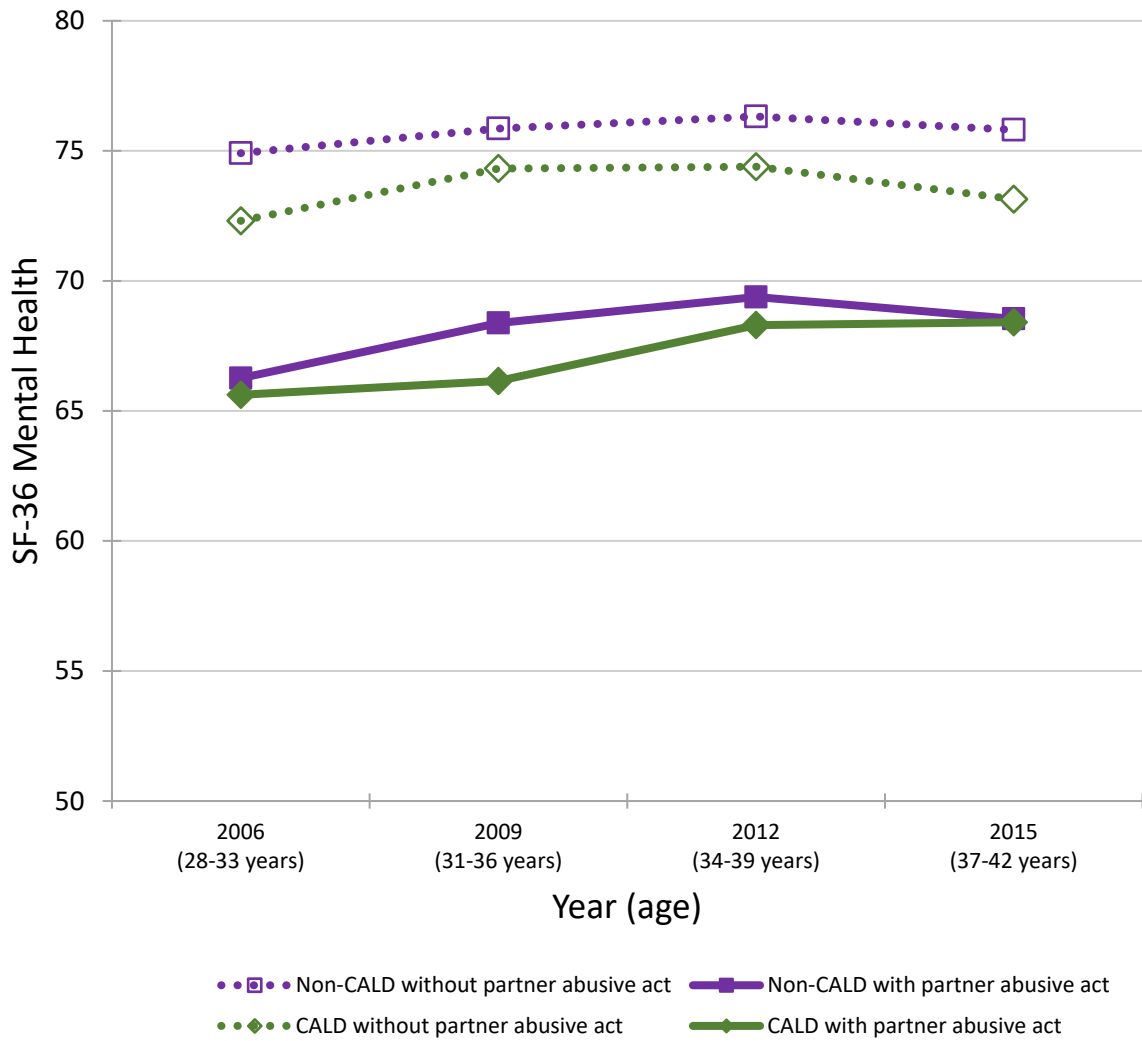
### 1973-78 cohort

**Figure 11 Mental health across surveys for women born 1973-78 by CALD background status and violent relationship status**



Women who reported having a violent relationship had poorer mental health than women who did not report this experience, regardless of CALD background status (Figure 11). Where women reported having a violent relationship, women from a CALD background had poorer mental health than women from a non-CALD background at the beginning of the study period. Over the first decade of the study, this difference became smaller, until there was no difference in mental health between women from CALD and non-CALD backgrounds who had a violent relationship.

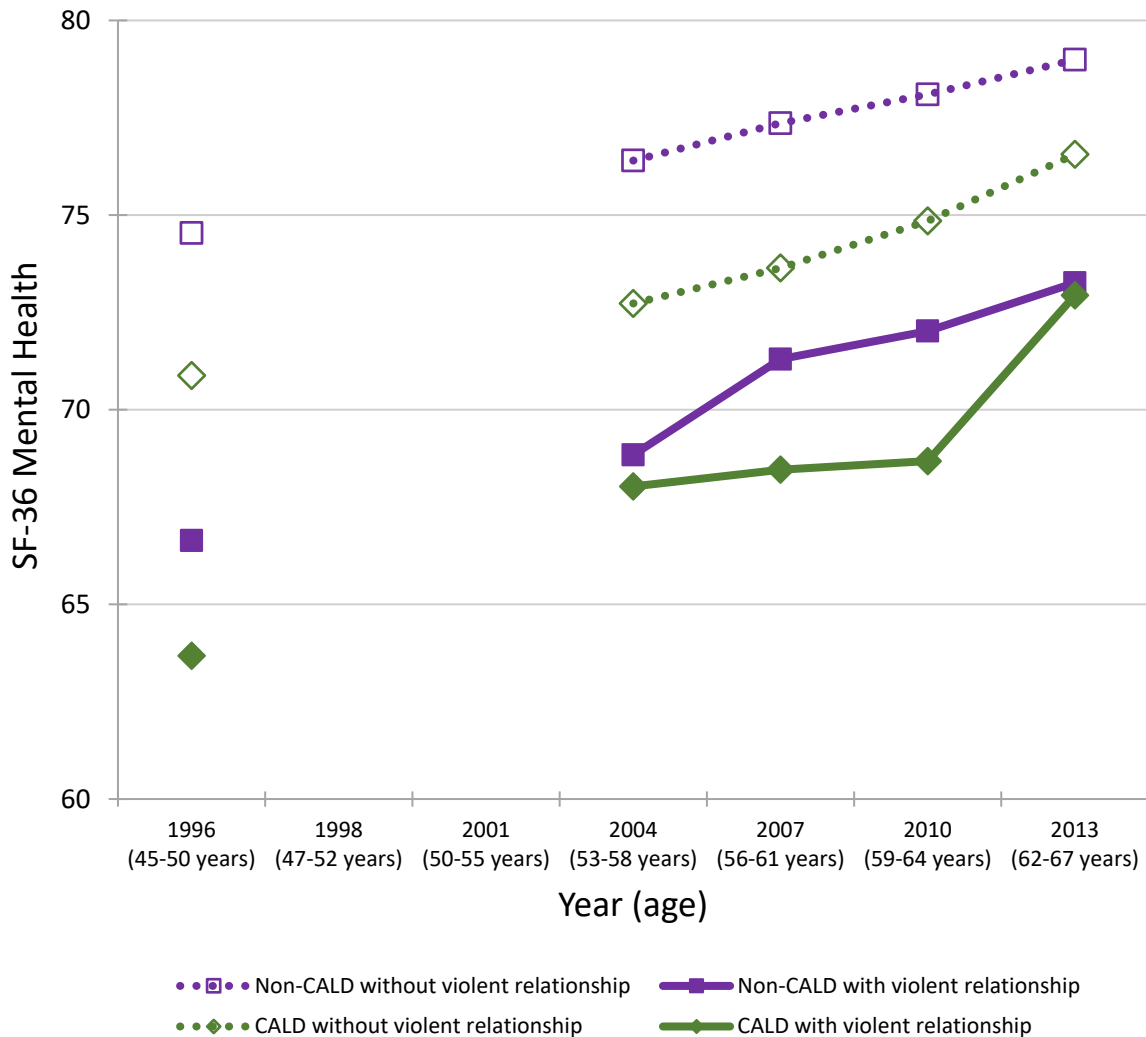
**Figure 12 Mental health across surveys for women born 1973-78 by CALD background status and having experienced a partner abusive act**



Women who reported having experienced a partner abusive act had poorer mental health than women who did not report this experience, regardless of CALD background status (Figure 12). Where women reported having experienced a partner abusive act, there was little difference between women from CALD and non-CALD backgrounds with regard to mental health.

## 1946-51 cohort

**Figure 13 Mental health across surveys for women born 1946-51 by CALD background status and violent relationship status**



Women who reported having a violent relationship had poorer mental health than women who did not report this experience, regardless of CALD background status. Where women reported having a violent relationship, women from a CALD background had slightly poorer mental health than women from a non-CALD background in 1996, 2007 and 2010. However, there was little difference in mental health between women from a CALD background and those from a non-CALD background in 2004 and 2013 (Figure 13).

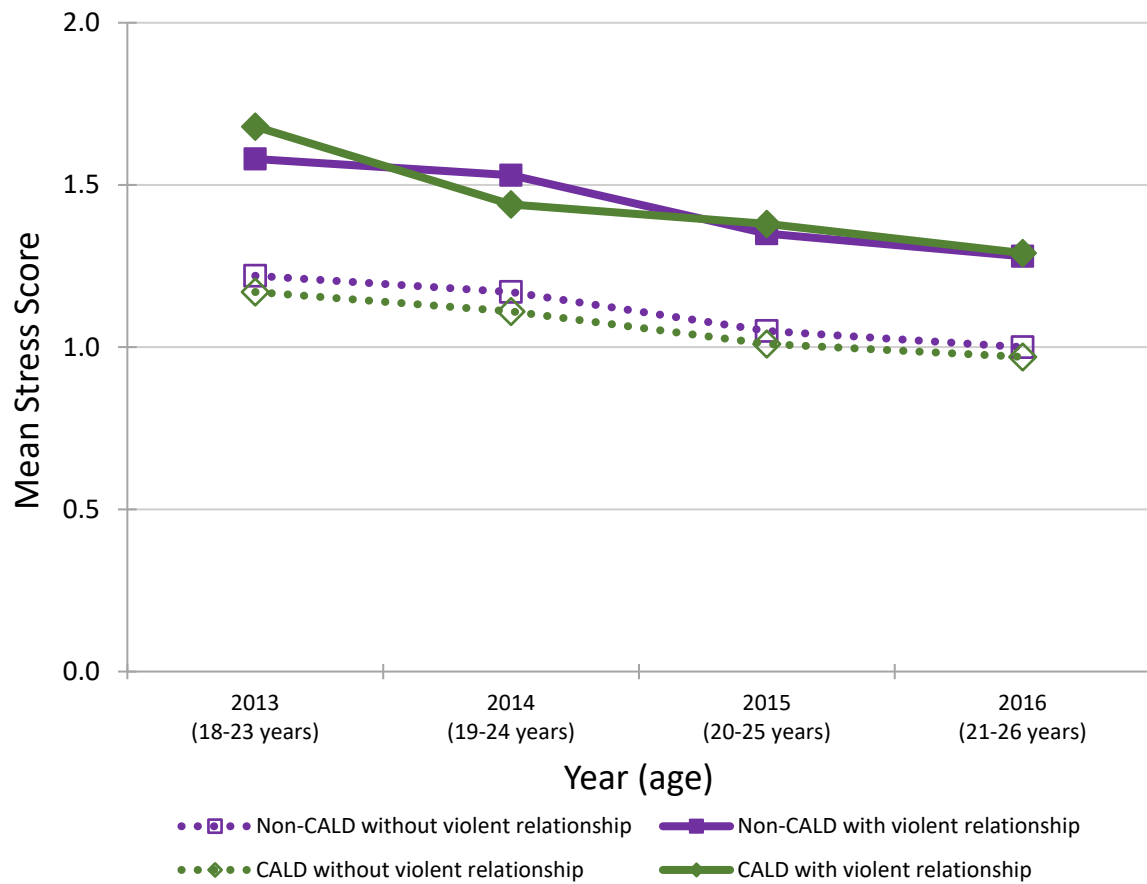
## 1.4 Stress

Stress was measured for all cohorts using the Perceived Stress Questionnaire for Young Women, where higher scores reflect higher levels of stress. Findings are presented by CALD background status for each survey across the study period for which DV data were available (Figures 14-18).

## Stress

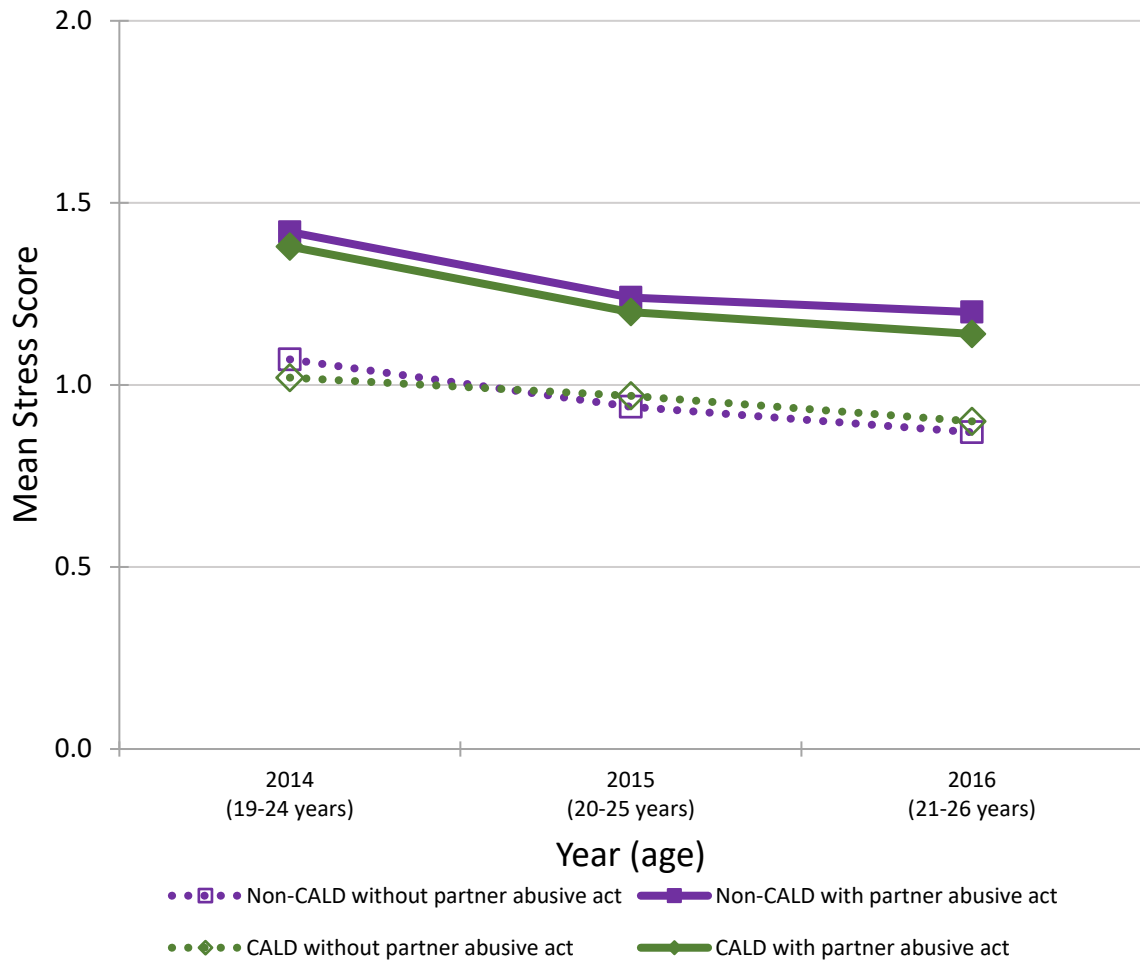
### 1989-95 cohort

**Figure 14 Stress across surveys for women born 1989-95 by CALD background status and violent relationship status**



Women from the 1989-95 cohort who reported having experienced a violent relationship were more stressed than women who did not report this experience, regardless of CALD background status (Figure 14). Where women reported having a violent relationship, there was little difference between women from CALD and non-CALD backgrounds with regard to stress.

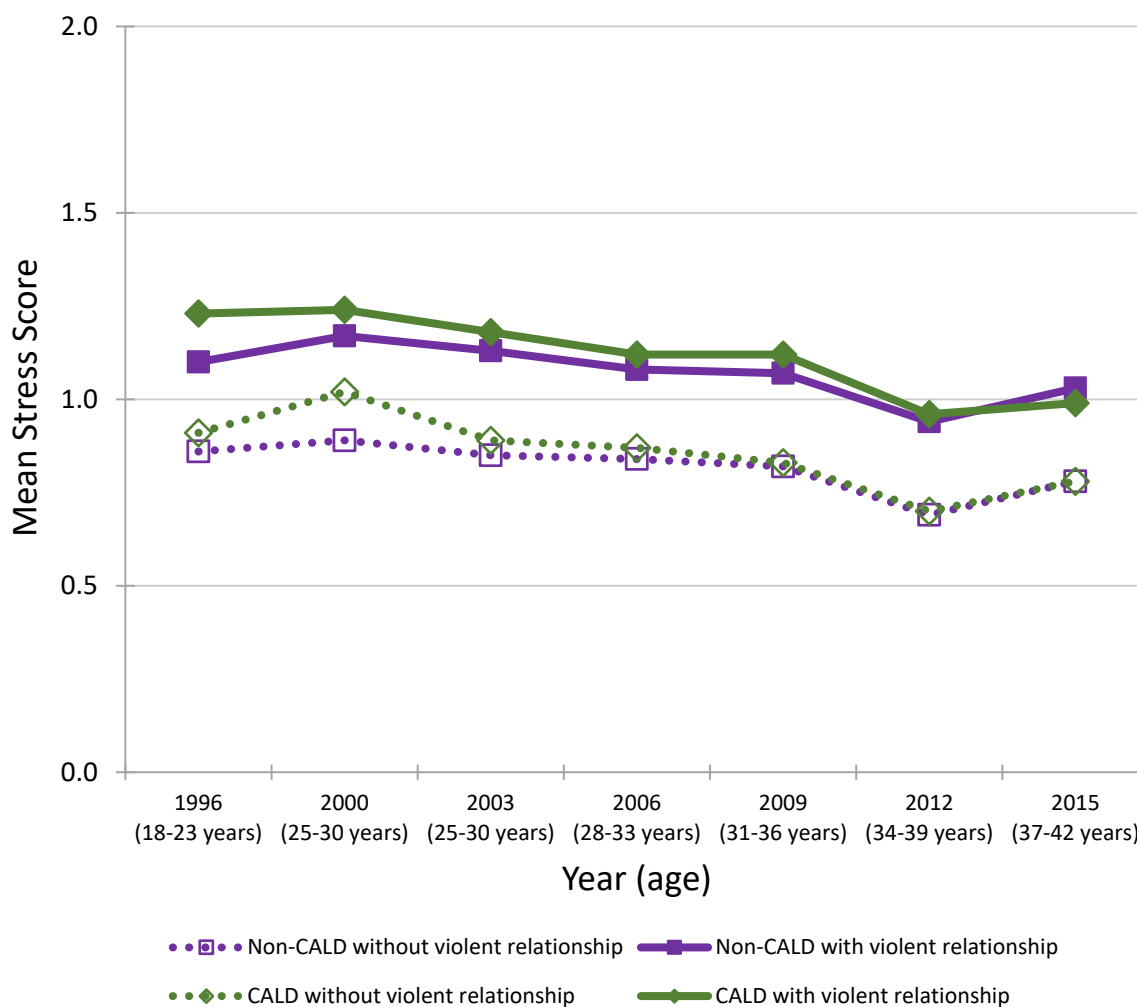
**Figure 15 Stress across surveys for women born 1989-95 by CALD background status and having experienced a partner abusive act**



Women from the 1989-95 cohort who reported having experienced a partner abusive act were more stressed than women who did not report this experience, regardless of CALD background status (Figure 15). Where women reported having experienced a partner abusive act, there was little difference between women from CALD and non-CALD backgrounds with regard to stress.

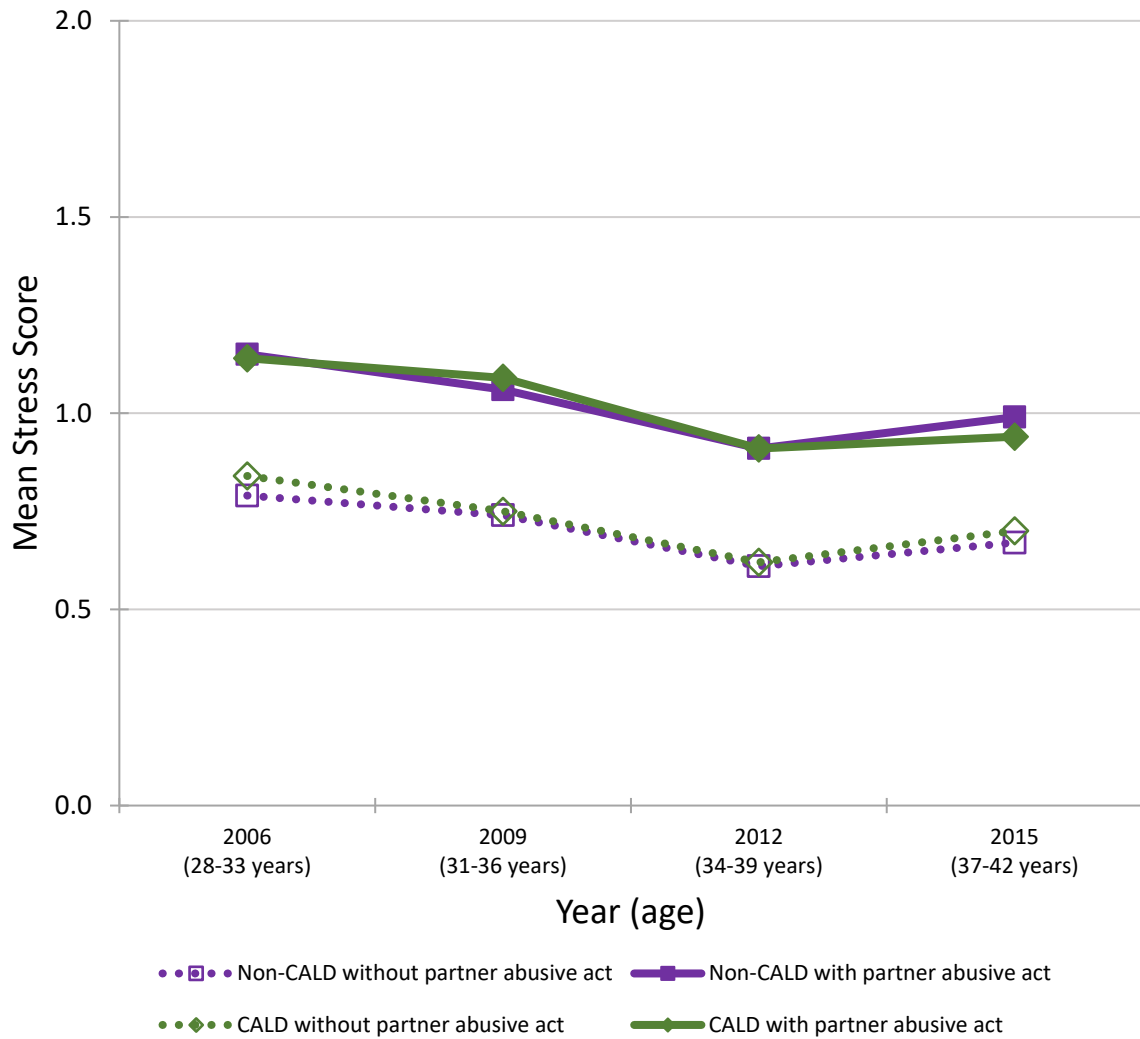
### 1973-78 cohort

**Figure 16 Stress across surveys for women born 1973-78 by CALD background status and violent relationship status**



Women from the 1973-78 cohort who reported having a violent relationship were slightly more stressed than women who did not report this experience, regardless of CALD background status (Figure 16). Where women reported having a violent relationship, there was little difference between women from CALD and non-CALD backgrounds with regard to stress.

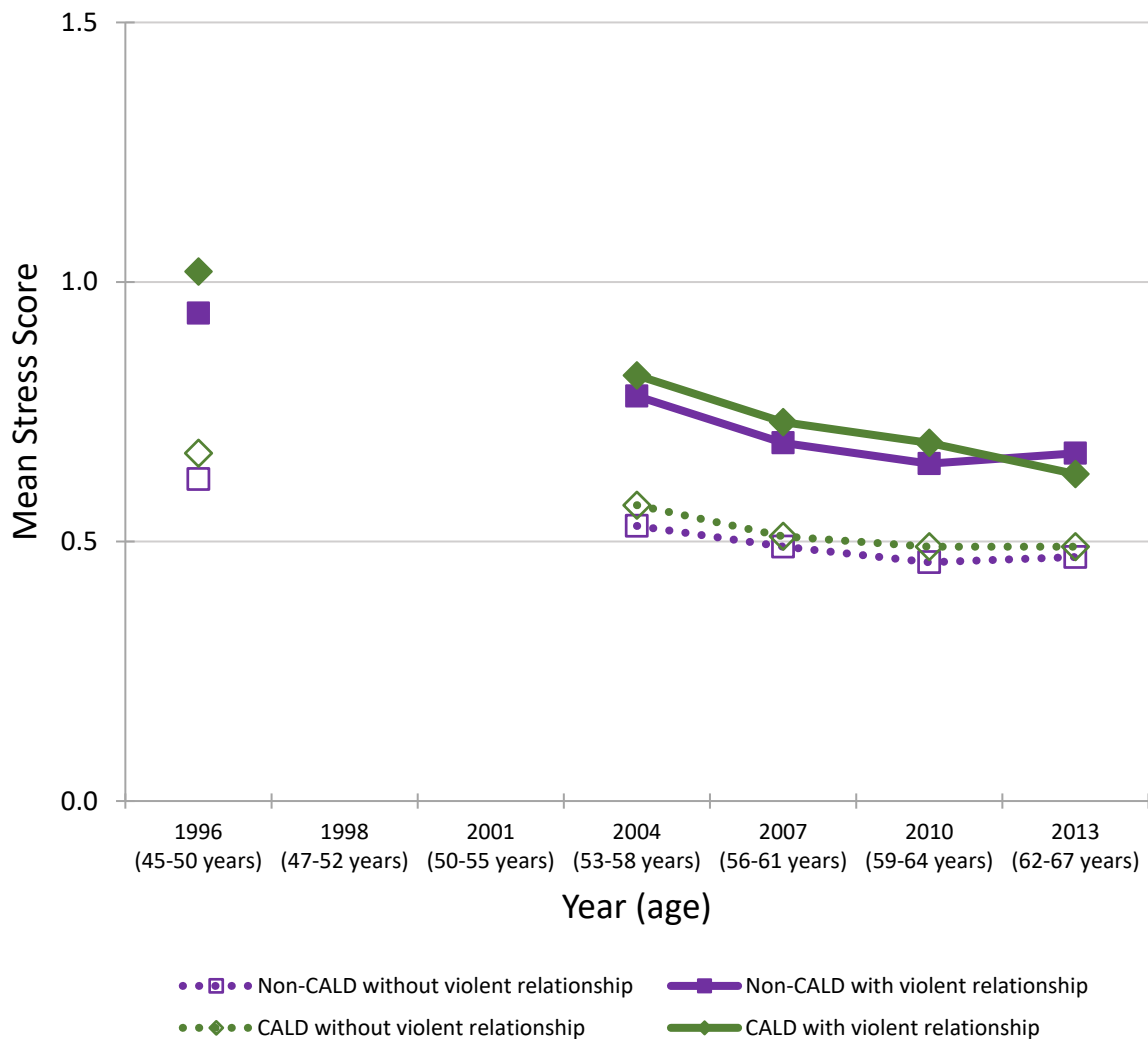
**Figure 17 Stress across surveys for women born 1973-78 by CALD background status and having ever experienced a partner abusive act**



Women from the 1973-78 cohort who reported having experienced a partner abusive act were more stressed than women who did not report this experience, regardless of CALD background status (Figure 17). Where women reported having experienced a partner abusive act, there was little difference between women from CALD and non-CALD backgrounds with regard to stress.

## 1946-51 cohort

Figure 18 Stress across surveys for women born 1946-51 by CALD background status and violent relationship status



Women from the 1946-51 cohort who reported having a violent relationship were more stressed than women who did not report this experience, regardless of CALD background status (Figure 18). Where women reported having a violent relationship, there was little difference between women from CALD and non-CALD backgrounds.

## Discussion

Women from both CALD and non-CALD backgrounds who had ever been in a violent relationship or experienced a partner abusive act reported poorer general health and lower levels of physical functioning compared with women who had never had these experiences, across all cohorts. There were minimal health differences among women who had experienced DV with regard to CALD background status.



Women from both CALD and non-CALD backgrounds who had ever been in a violent relationship or experienced a partner abusive act also reported poorer psychological health or higher levels of psychological distress compared with women who had never had these experiences, across all cohorts. There were minimal mental health differences among women who had experienced a violent relationship or a partner abusive act with regard to CALD background status for the 1989-95 and 1946-51 cohorts. However, some differences existed for women in the 1973-78 cohort with a history of a violent relationship. For women in the 1973-78 cohort who had experienced a violent relationship, those with a CALD background experienced poorer mental health than women from a non-CALD background throughout their twenties. A sharper improvement in mental health was evident for women from a CALD background from the age of 30, which resulted in similar levels of mental health for women from CALD and non-CALD backgrounds who had experienced a violent relationship. Across all cohorts, DV was related to higher levels of stress, with minimal differences apparent between women from CALD and non-CALD backgrounds.

Previous research has shown that women from a CALD background may be less likely to report DV when it occurs, in part due to cultural issues and language barriers [19-21]. Another limitation of the current research is the underrepresentation of women from linguistically diverse backgrounds in ALSWH cohorts. Therefore, the current results might underestimate the prevalence of DV among women from a CALD background. The analyses undertaken were sequential cross-sectional in nature, to maximise the numbers in each group. Despite these limitations, the results offer compelling evidence for associations between DV and poor health outcomes and provide evidence that associations between DV and health are at least as serious for women from CALD backgrounds as they are for women from non-CALD backgrounds.

# Section 2: Domestic violence and disability

## Background

Research has demonstrated that women with a disability experience higher rates of DV than women without a disability [14, 23]. A recent analysis using data from the 2012 Personal Safety Survey found that Australians with a disability had twice the odds of experiencing violence, compared to those without a disability [24]. In a Canadian study, women with a disability were 1.4 times more likely to have experienced DV in the 5 years prior to the study than those without a disability [25]. The authors noted that women with disabilities that precluded self-completion of the survey were ineligible to participate, so the true prevalence of DV among women with a disability is difficult to determine [25]. Higher rates of DV among women with a disability compared to those without have also been reported in Bangladesh [26], England and Wales [27], and Sweden [28]. In the 2016 Australian Personal Safety Survey, women with a disability or long-term health condition were more likely to have experienced violence than women without a disability or long-term health condition. In 2016, an estimated 6% of women with a disability or long-term health condition experienced violence in the previous 12 months, compared with 4% of those without a disability or long-term health condition [3].

The type of violence experienced by women with a disability is varied and multifaceted. In Australia, women with a disability more often report experiences of sexual violence or intimate partner violence [24]. Sexual violence against women with a disability has also been reported among American women [29] and women in England and Wales [27]. In a Canadian study, researchers found that women with a disability were more likely to experience extreme acts of violence [25], including being beaten or hit. This study also found younger women with a disability to be particularly vulnerable to violence inflicted by their partner [25].

Research has consistently demonstrated the ongoing adverse impact of experiences of DV on health and wellbeing at the population level [22]. However, little research has examined

the health impact of DV experiences on women with a disability. In a study conducted in England and Wales, experiences of DV were shown to negatively impact the mental health of those with a disability [27]. Some Australian work has examined access to the justice system among women with a disability who have experienced violence. However, research examining the impact of DV on the health and wellbeing of Australian women with a disability is scant.

## Aims

This analysis of ALSWH data will contribute to current knowledge in this area. Specifically, these analyses aim to examine:

1. The physical health of women, by disability and DV status;
2. The mental health of women, by disability and DV status; and
3. The stress levels of women, by disability and DV status.

Data from the ALSWH cohorts born 1989-95, 1973-78, and 1946-51 were used to address these aims.

## Results

### 2.1 Prevalence of domestic violence by disability

Across all three cohorts, women with a disability were more likely to report having a violent relationship (see Appendix 2). In the 1989-95 cohort, 28-35% of women with a disability reported a violent relationship, compared with 13-21% of women without a disability. In the 1973-78 cohort, 20-48% of women with a disability reported a violent relationship, compared with 12-24% of women without a disability. In the 1946-51 cohort, 33-37% of women with a disability reported a violent relationship, compared with 16-21% of women without a disability.

In the 1989-95 and 1973-78 cohorts, women with a disability were also more likely to report experiencing a partner abusive act than women without a disability (see Appendix 2). In the 1989-95 cohort, 59-74% of women with a disability reported experiencing a partner abusive act, compared with 47-58% of women without a disability. In the 1973-78 cohort, 43-71% of women with a disability reported experiencing a partner abusive act, compared with 25-53% of women without a disability. The number of women reporting a disability was low in the younger two cohorts, as might be expected given their ages. Results for these two cohorts should be interpreted with caution.

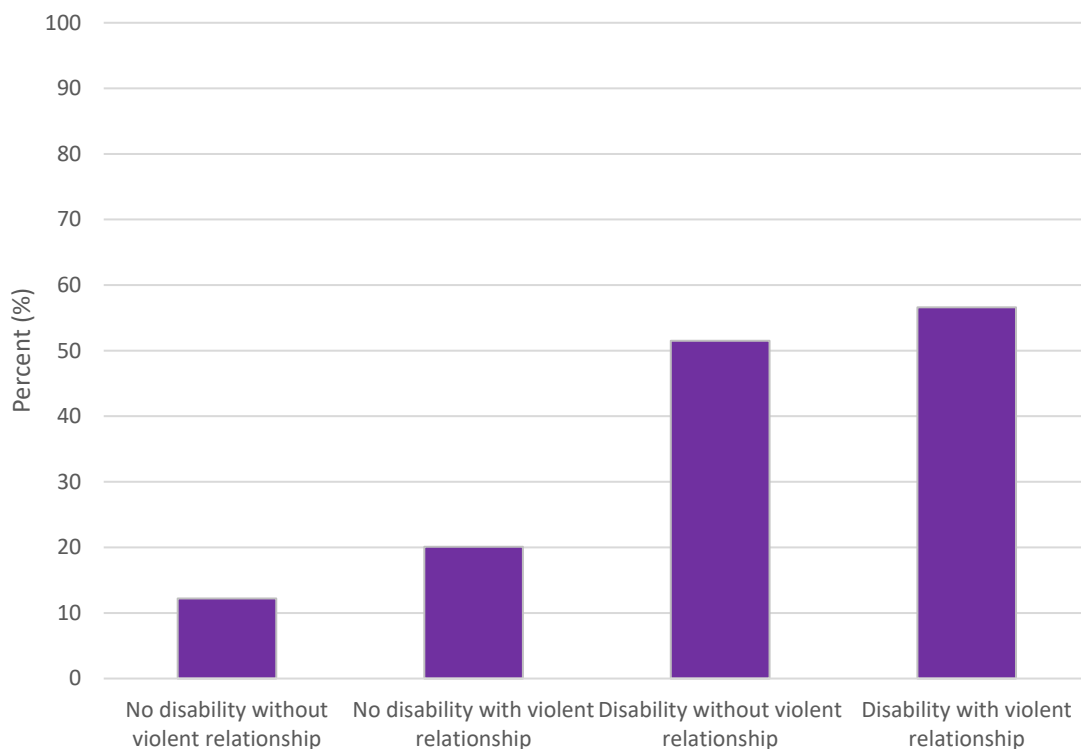
## 2.2 Physical health

### General health

For each cohort, general health data from the most recent survey are presented by disability and DV status (Figures 19-23).

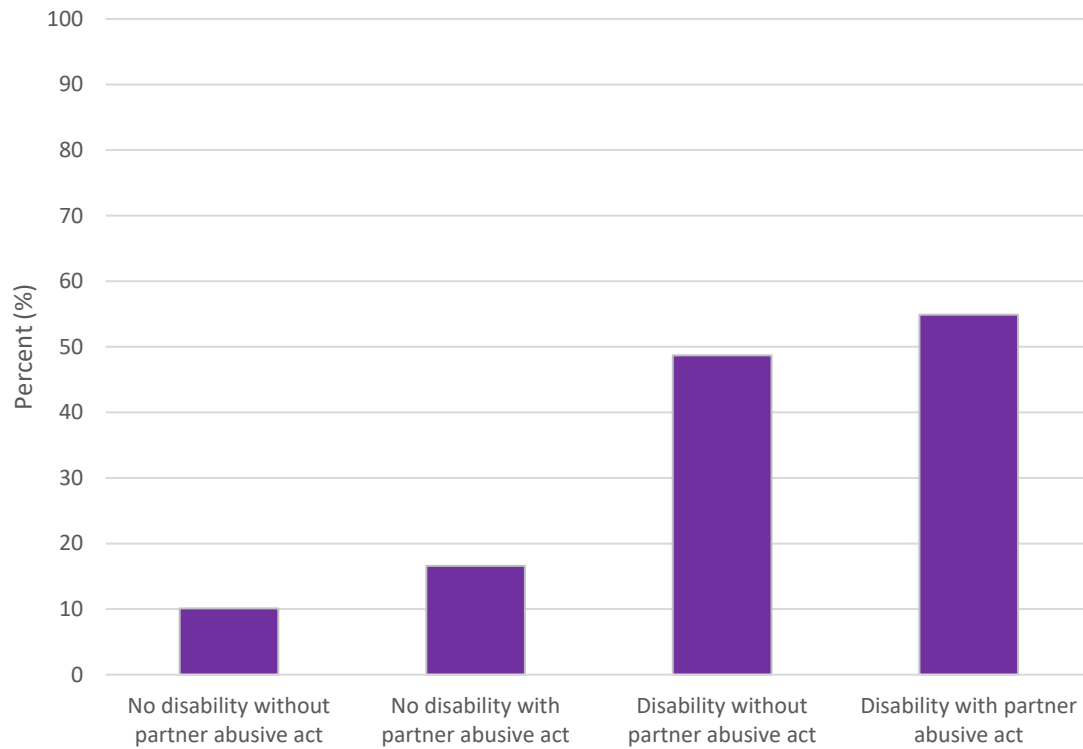
#### 1989-95 cohort

**Figure 19 Poor/fair general health of women aged 21-26 in 2016 by disability status in 2012-3 and violent relationship status**



Overall, women from the 1989-95 cohort who reported a disability at the start of the study period were more likely to report poor health than those without a disability, regardless of violent relationship status. Among women with a disability, poor health was reported by 52% of women with no history of a violent relationship, compared with 57% of women with a history of a violent relationship (Figure 19). This difference of 5% is similar to the same comparison among women without a disability, where 12% of those who had never had a violent relationship reported poor health, compared with 20% who had a violent relationship, a difference of 8%.

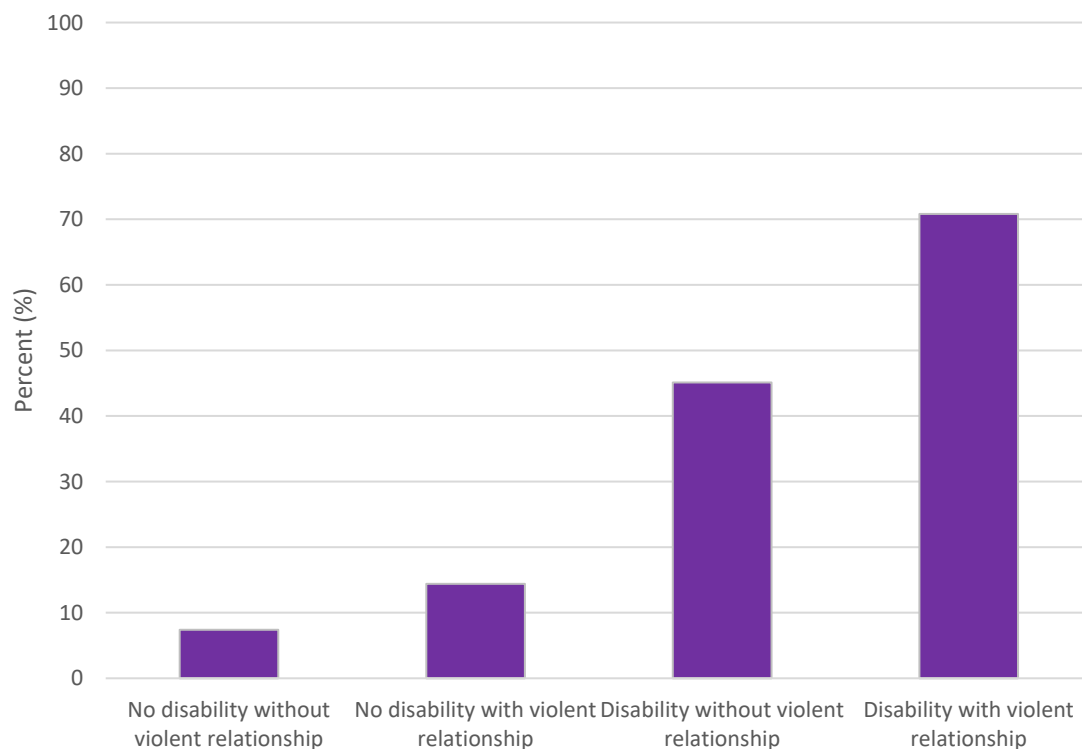
**Figure 20 Poor/fair general health of women aged 21-26 in 2016 by disability status in 2012-3 and having experienced a partner abusive act**



For women with a disability from the 1989-95 cohort, poor health was reported by 49% of women who had not reported experiencing a partner abusive act, compared with 55% of women who had reported experiencing a partner abusive act, a difference of 6% (Figure 20). A similar difference exists when comparing women without a disability, where 10% of those who had not experienced a partner abusive act reported poor health, compared with 17% who had experienced a partner abusive act, a difference of 7%.

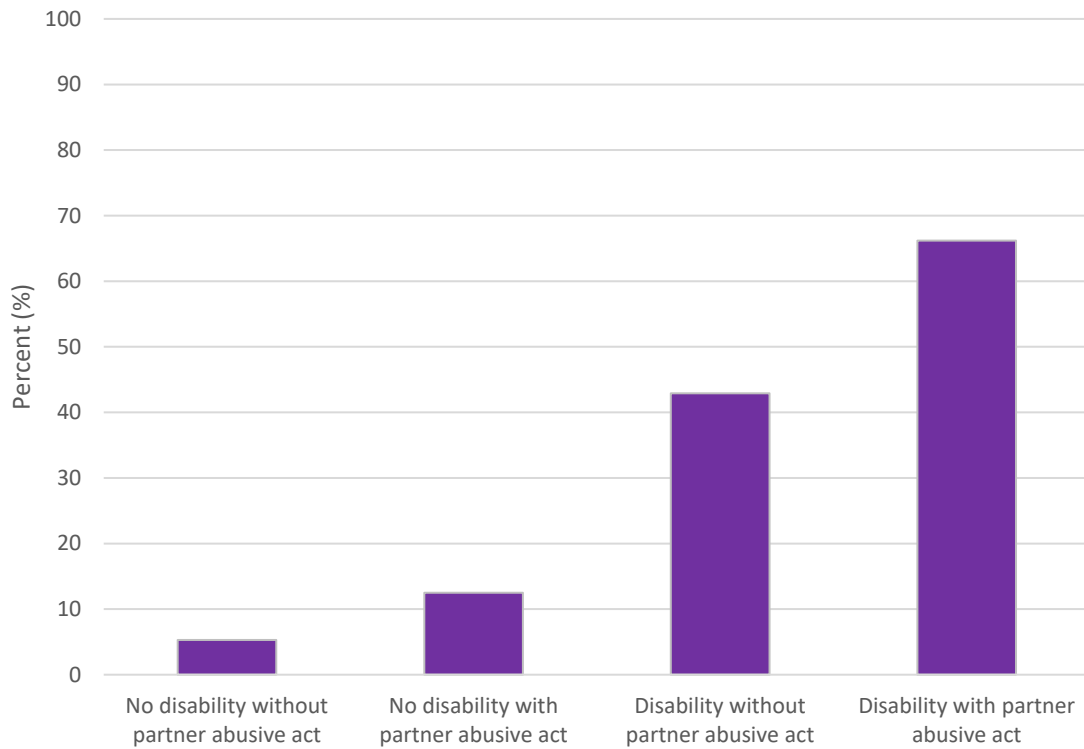
### 1973-78 cohort

**Figure 21 Poor/fair general health of women aged 37-42 in 2015 by disability status and violent relationship status**



Overall, women from the 1973-78 cohort who had a disability were more likely to report poor health than those without a disability, regardless of violent relationship status. Among women with a disability, 45% of women with no history of a violent relationship reported poor health, compared with 71% of women with a history of a violent relationship (Figure 21). This difference of 26% is larger than the same comparison among women without a disability, where 7% of those who had never been in a violent relationship reported poor health, compared with 14% who had a violent relationship, a difference of 7%.

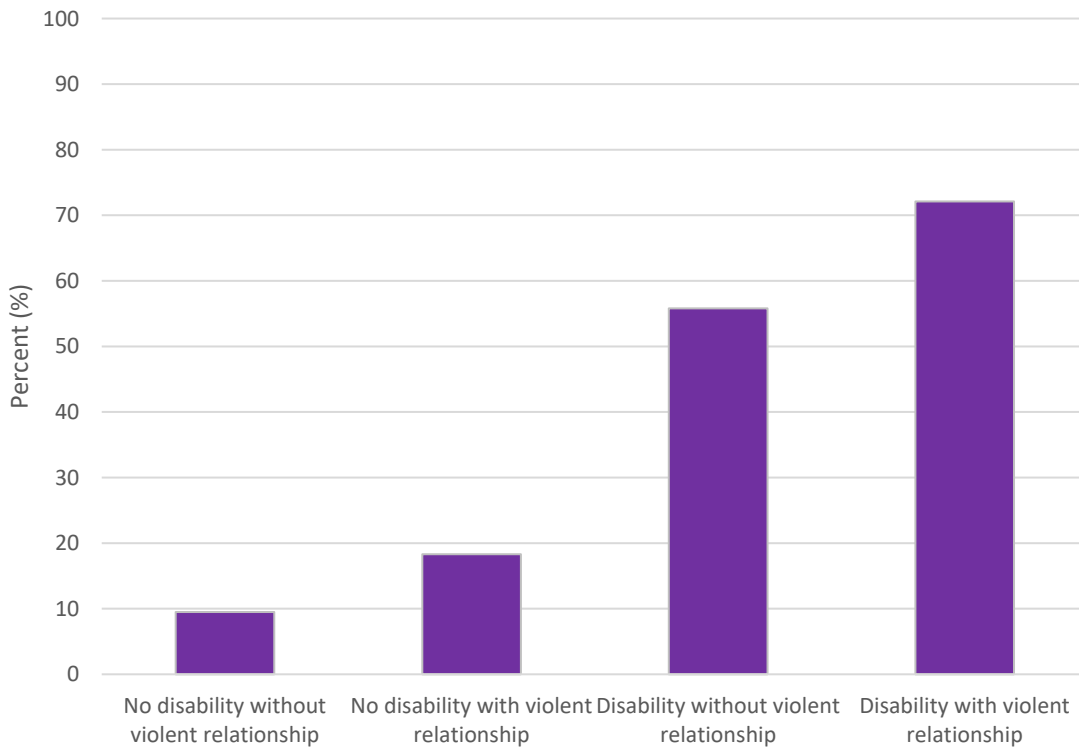
**Figure 22 Poor/fair general health of women aged 37-42 in 2015 by disability status and having experienced a partner abusive act**



For women with a disability from the 1973-78 cohort, poor health was reported by 43% of women who had not reported experiencing a partner abusive act, compared with 66% of women who had reported experiencing a partner abusive act (Figure 22). This difference of 23% is larger than the same comparison among women without a disability, where 5% of those who had not experienced a partner abusive act reported poor health, compared with 13% who had experienced a partner abusive act, a difference of 8%.

## 1946-51 cohort

**Figure 23 Poor/fair general health of women aged 65-70 in 2016 by disability status and violent relationship status**



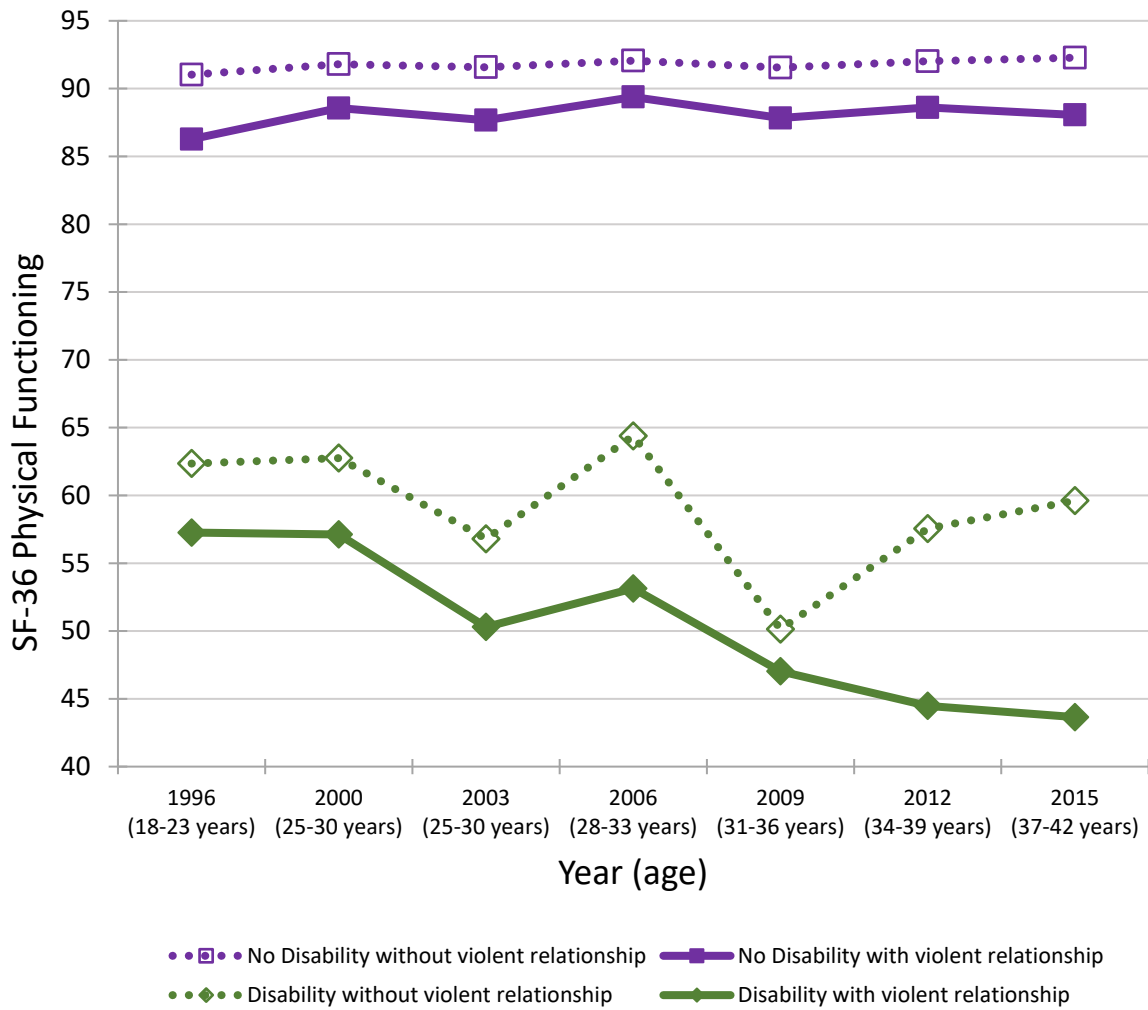
Overall, women from the 1946-51 cohort who had a disability were more likely to report poor health than those without a disability, regardless of violent relationship status. For women with a disability, poor health was reported by 56% of women with no history of a violent relationship, compared with 72% of women with a history of a violent relationship (Figure 23). This difference of 16% is larger than the same comparison among women without a disability, where 10% of those who had never had a violent relationship reported poor health, compared with 18% who had a violent relationship, a difference of 8%.

### Physical functioning

Physical functioning was measured using the physical functioning subscale for the SF-36, where higher scores reflect better physical functioning. Data on physical functioning were available for the 1973-78 and 1946-51 cohorts and are presented by disability status for each survey across the study period for which DV data were available (Figures 24-26).

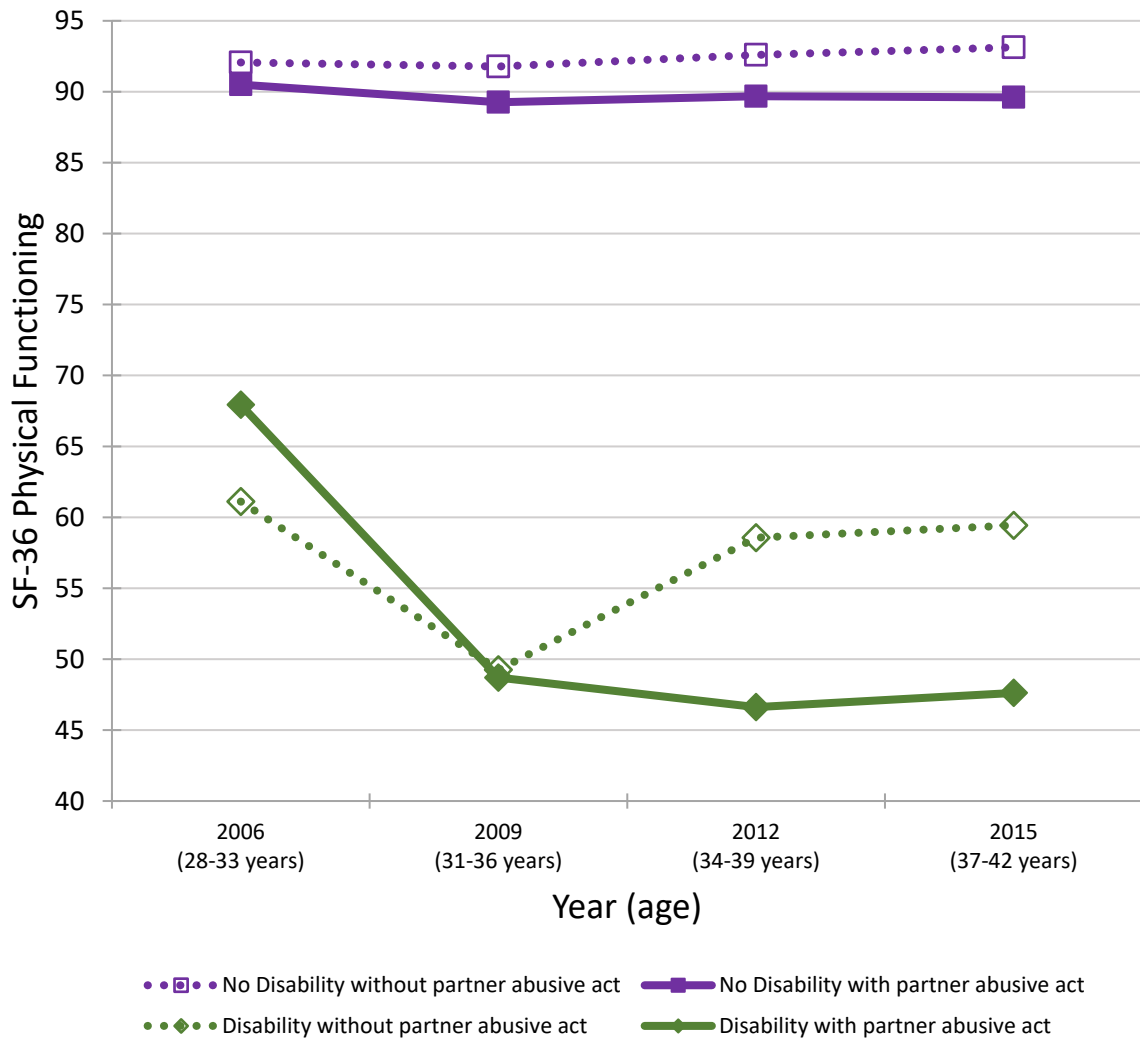


**Figure 24 Physical functioning across surveys for women born 1973-78 by disability status and violent relationship status**



Women from the 1973-78 cohort who reported having a disability had much poorer physical functioning than those without a disability, regardless of violent relationship status (Figure 24). Where women reported having a disability, those who reported having a violent relationship had slightly poorer physical functioning than those who did not.

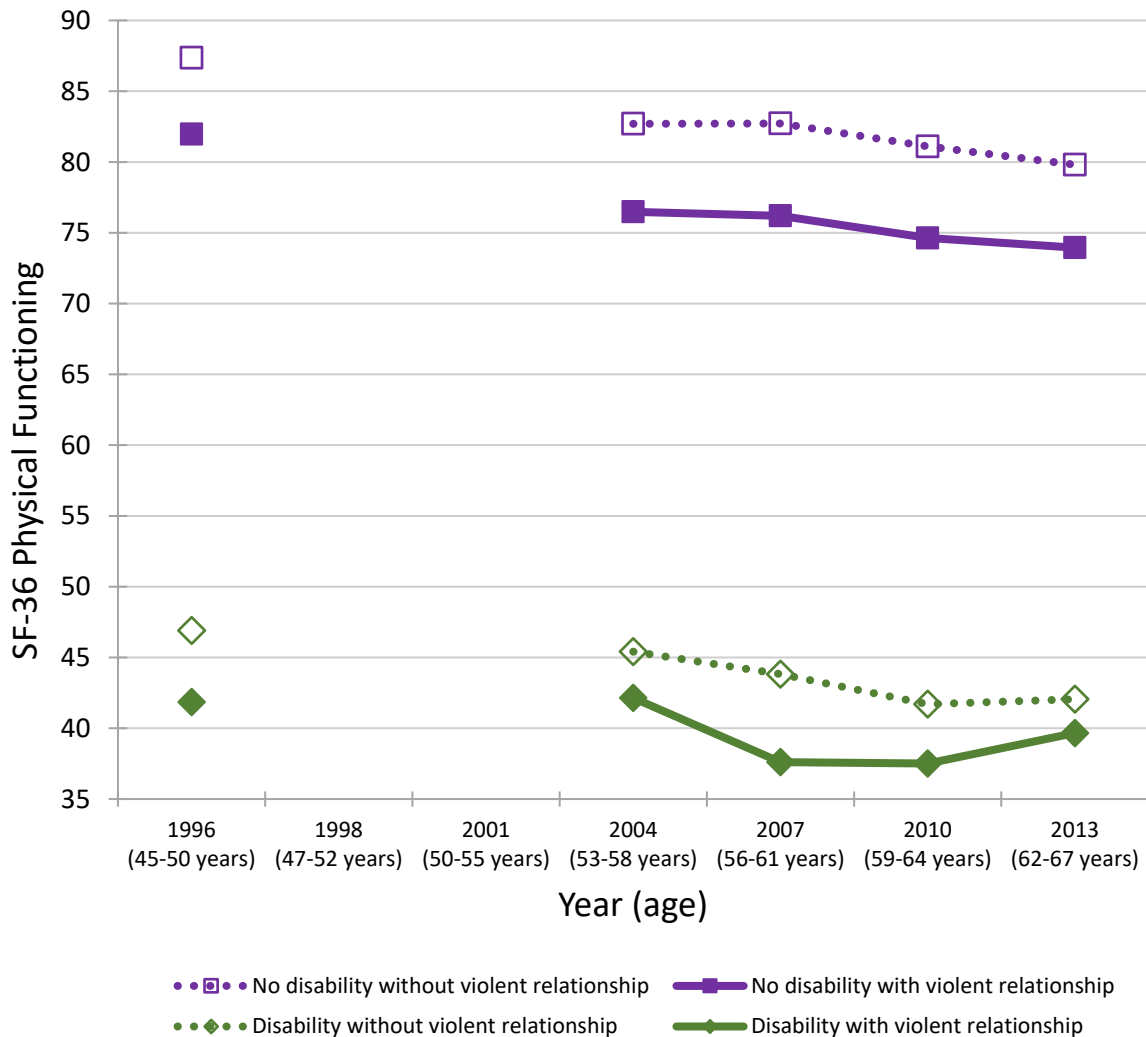
**Figure 25 Physical functioning across surveys for women born 1973-78 by disability status and having experienced a partner abusive act**



Women from the 1973-78 cohort who reported having a disability had much poorer physical functioning than those without a disability, regardless of whether or not they had experienced a partner abusive act (Figure 25). From 2006 to 2009, where women reported having a disability, there was little difference in physical functioning between those who had and had not experienced a partner abusive act. However, from 2012, women who reported having experienced a partner abusive act had poorer physical functioning than those who did not. Furthermore, the difference in physical functioning between those who had and had not experienced a partner abusive act among women with a disability was greater than the difference between those who had and had not experienced a partner abusive act among women without a disability.

## 1946-51 cohort

**Figure 26 Physical functioning across surveys for women born 1946-51 by disability and violent relationship status**



Women from the 1946-51 cohort who reported having a disability had much poorer physical functioning than those without a disability, regardless of violent relationship status (Figure 26). Where women reported having a disability, those who reported having a violent relationship had slightly poorer physical functioning than those who did not.

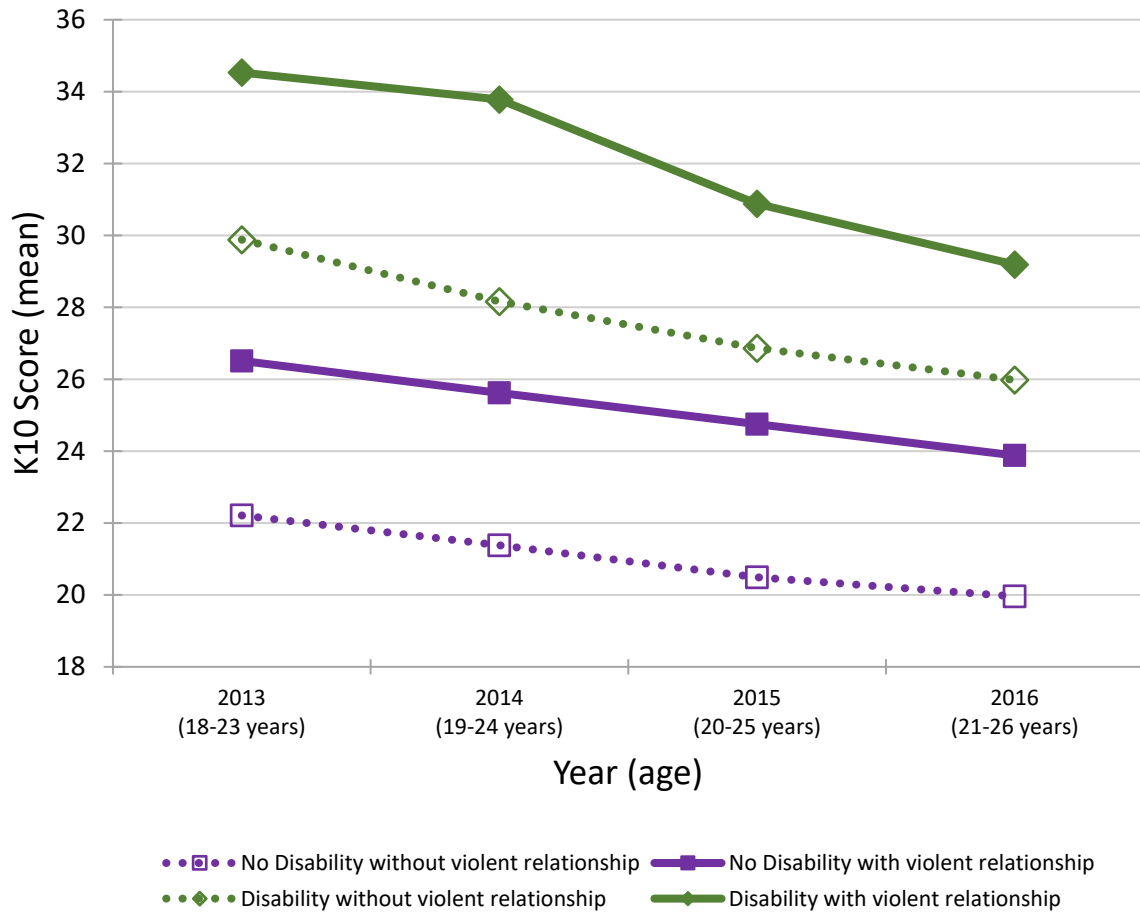
## 2.3 Mental health

Psychological distress was measured in the 1989-95 cohort using the K10, where higher scores reflect higher levels of psychological distress. Mental health among the 1973-78 and 1946-51 cohorts was measured by the SF-36 mental health subscale, where higher scores reflect better mental health. Mental health measures are presented by disability status for each survey across the study period for which DV data were available (Figures 27-31).

## Psychological distress

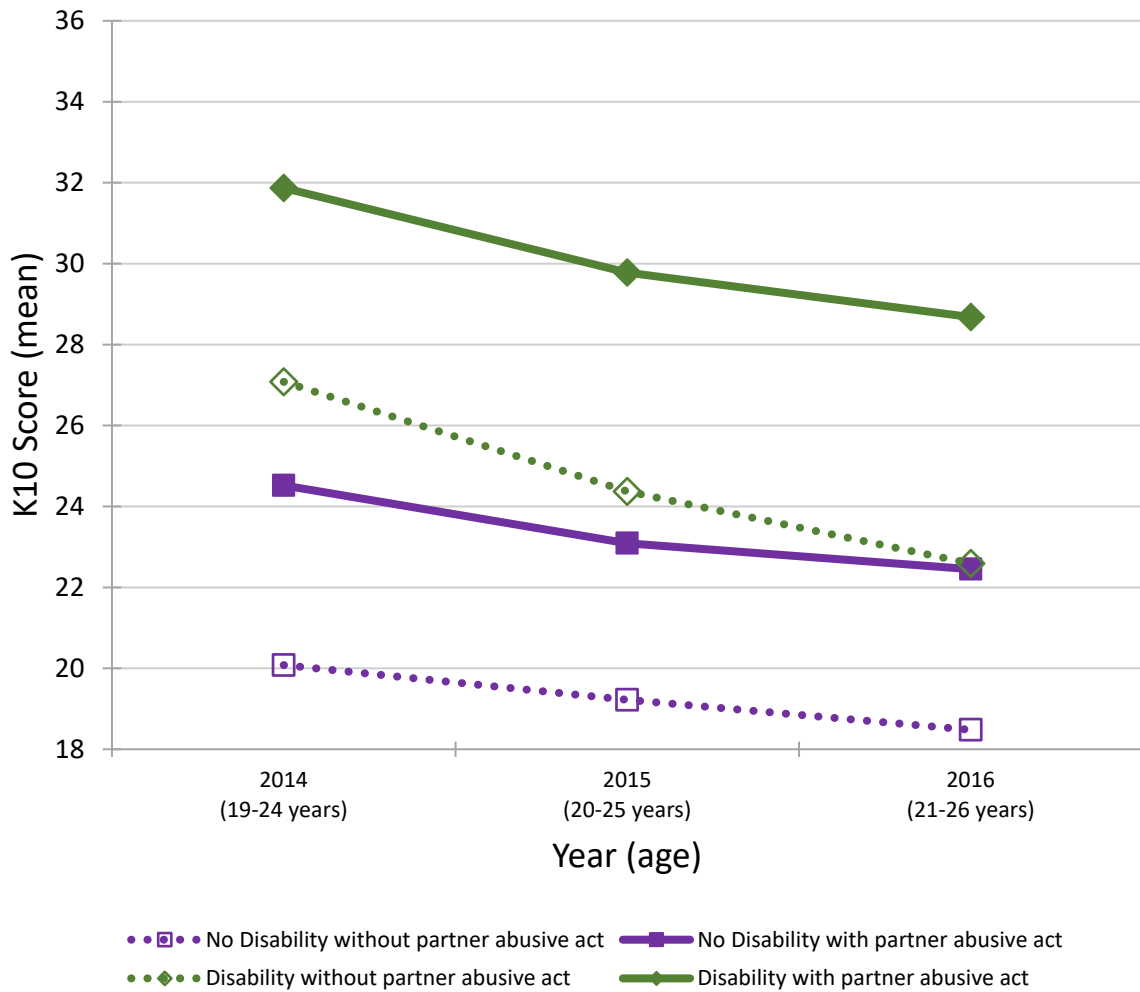
### 1989-95 cohort

**Figure 27 Psychological distress across surveys for women born 1989-95 by disability status in 2012-3 and violent relationship status**



Women from the 1989-95 cohort who reported having a disability at the start of the study period had higher psychological distress than those without a disability, regardless of violent relationship status (Figure 27). Where women reported having a disability, those who reported having a violent relationship had higher psychological distress than those who did not.

**Figure 28 Psychological distress across surveys for women born 1989-95 by disability status in 2012-3 and having experienced a partner abusive act**

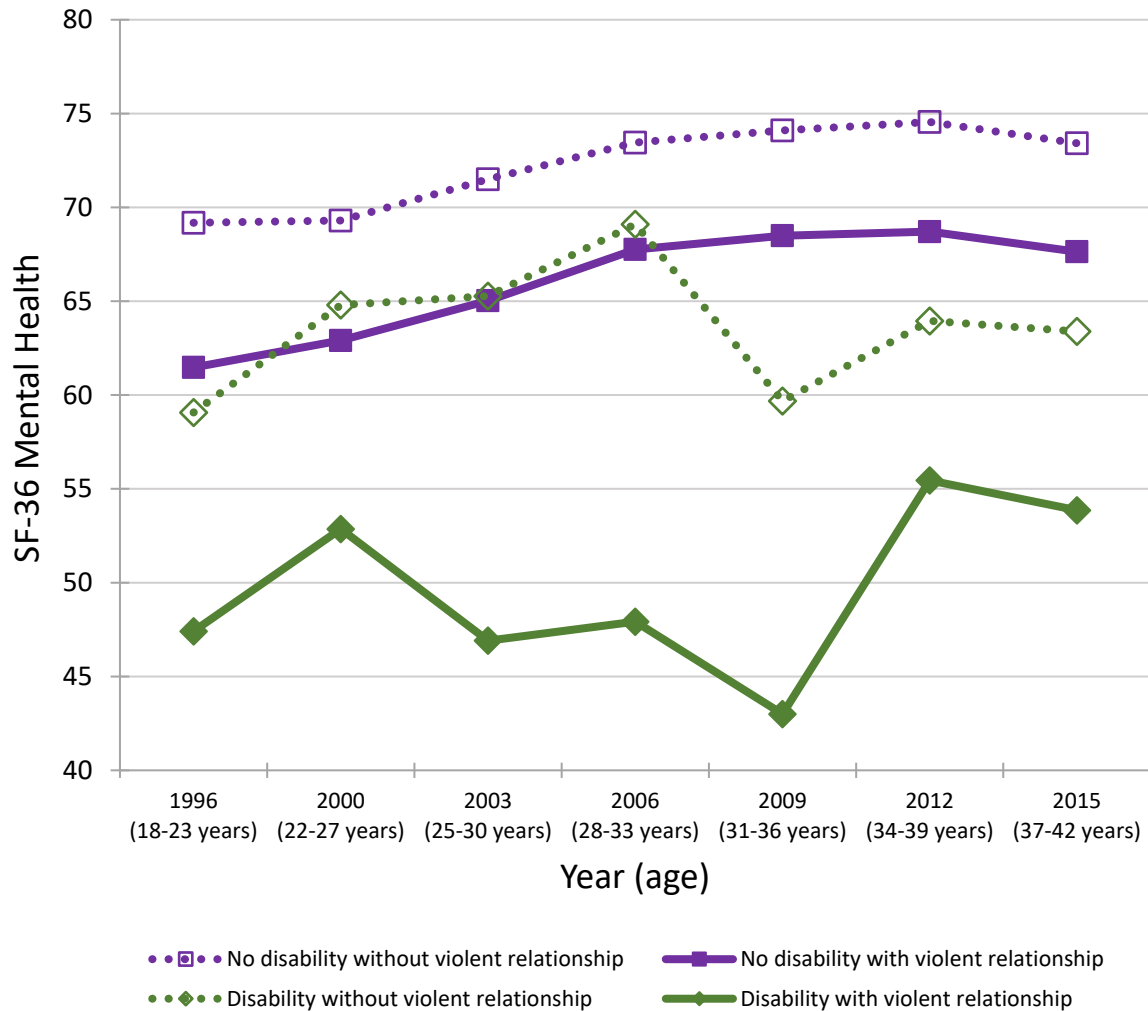


Women from the 1989-95 cohort who reported having a disability at the start of the study period had higher psychological distress than those without a disability, regardless of whether or not they had reported experiencing a partner abusive act (Figure 28). Where women reported having a disability, those who reported having experienced a partner abusive act had higher psychological distress than those who did not. By the time women were aged 21 to 26 years, there was no difference in psychological distress between those who reported a disability without a partner abusive act and those without a disability who reported experiencing a partner abusive act.

## Mental health

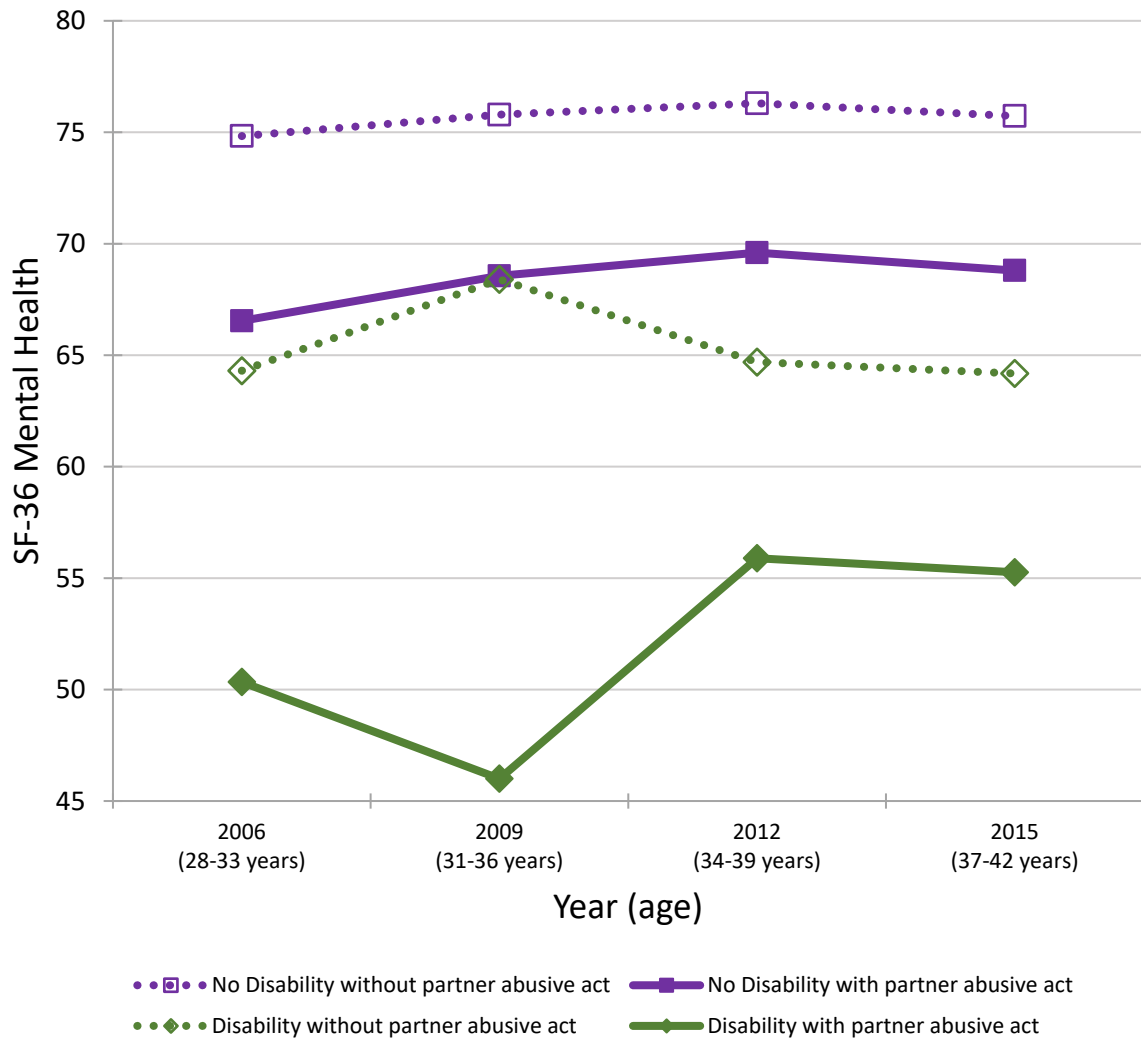
### 1973-78 cohort

**Figure 29 Mental health across surveys for women born 1973-78 by disability status and violent relationship status**



Of women from the 1973-78 cohort, those who reported having a disability and a violent relationship had the poorest mental health and those who did not have a disability and had not had a violent relationship had the best mental health (Figure 29). From 1996 to 2006, women who reported having a disability and had not experienced a violent relationship had similar mental health to those who reported not having a disability but had experienced a violent relationship. From 2009, women with a disability who had not experienced a violent relationship had slightly poorer health than those who did not have a disability but had experienced a violent relationship.

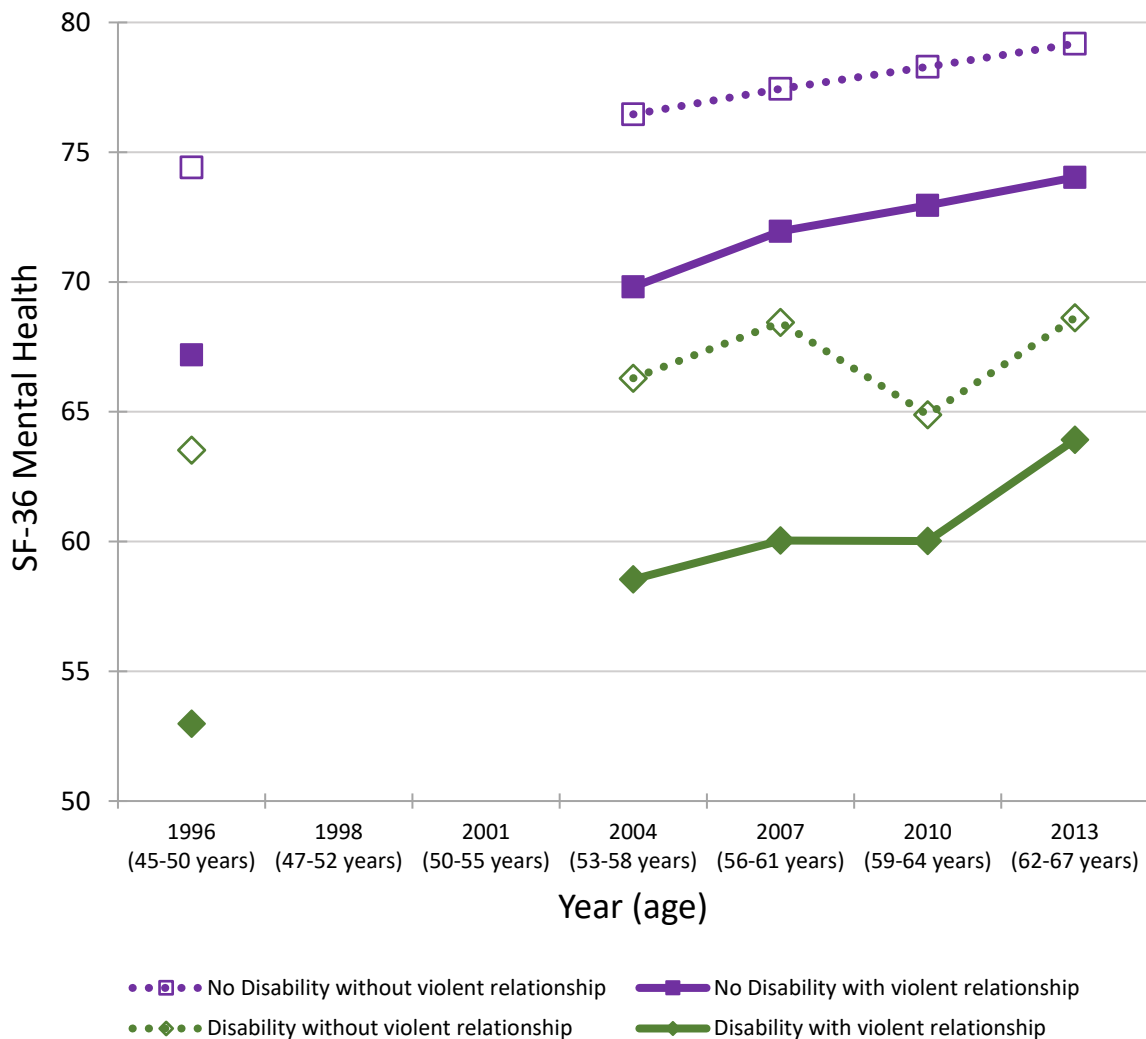
**Figure 30 Mental health across surveys for women born 1973-78 by disability status and having experienced a partner abusive act**



Of women from the 1973-78 cohort, those who reported having a disability and had experienced a partner abusive act had the poorest mental health and those who did not have a disability and had not experienced a partner abusive act had the best mental health (Figure 30). Women who reported a disability and had not experienced a partner abusive act reported similar mental health to those who did not have a disability but had experienced a partner abusive act.

## 1946-51 cohort

Figure 31 Mental health across surveys for women born 1946-51 by disability status and violent relationship status



Women from the 1946-51 cohort who reported having a disability had poorer mental health than those without a disability, regardless of violent relationship status (Figure 31). Where women reported having a disability, those who reported a violent relationship had poorer physical functioning than those who did not.

## 2.4 Stress

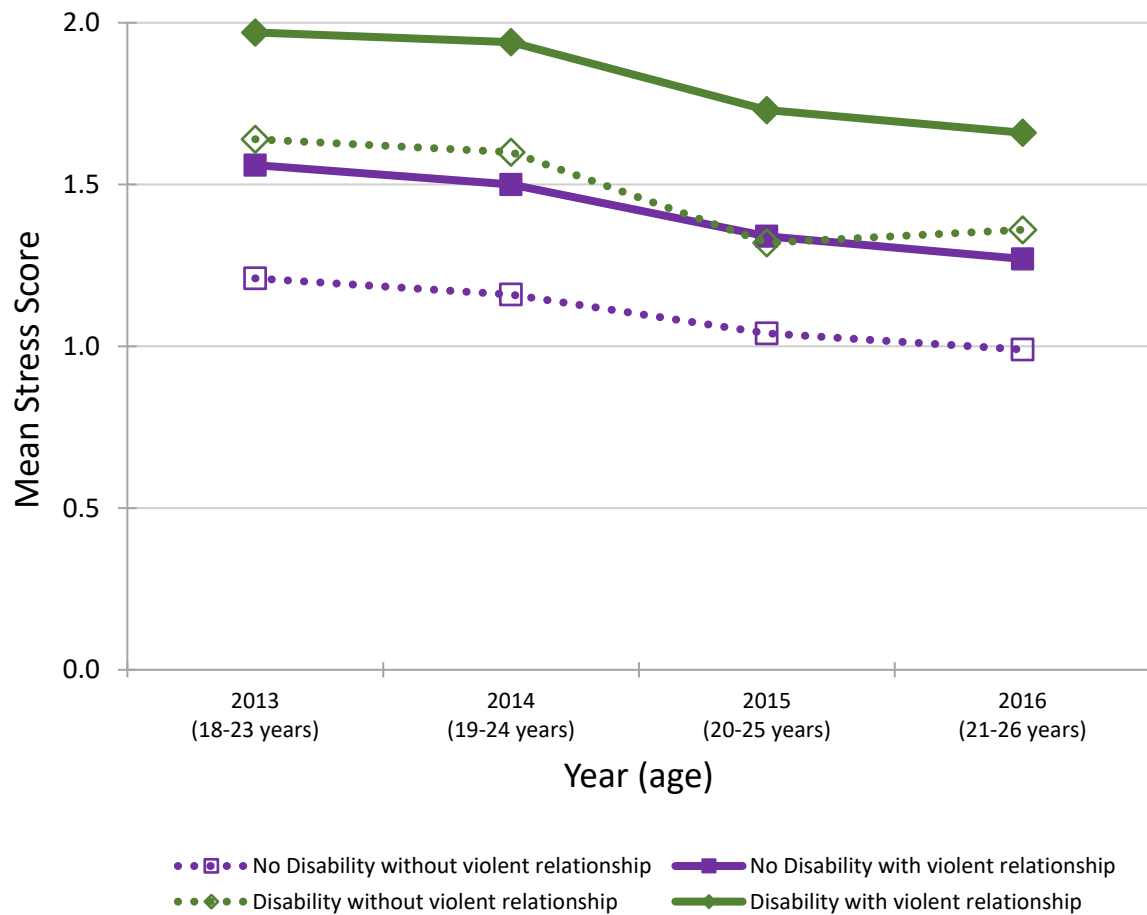
Stress was measured for all cohorts using the Perceived Stress Questionnaire for Young Women, where higher scores reflect higher levels of stress. Findings are presented by disability status for each survey across the study period for which DV data were available (Figures 32-36).



## Stress

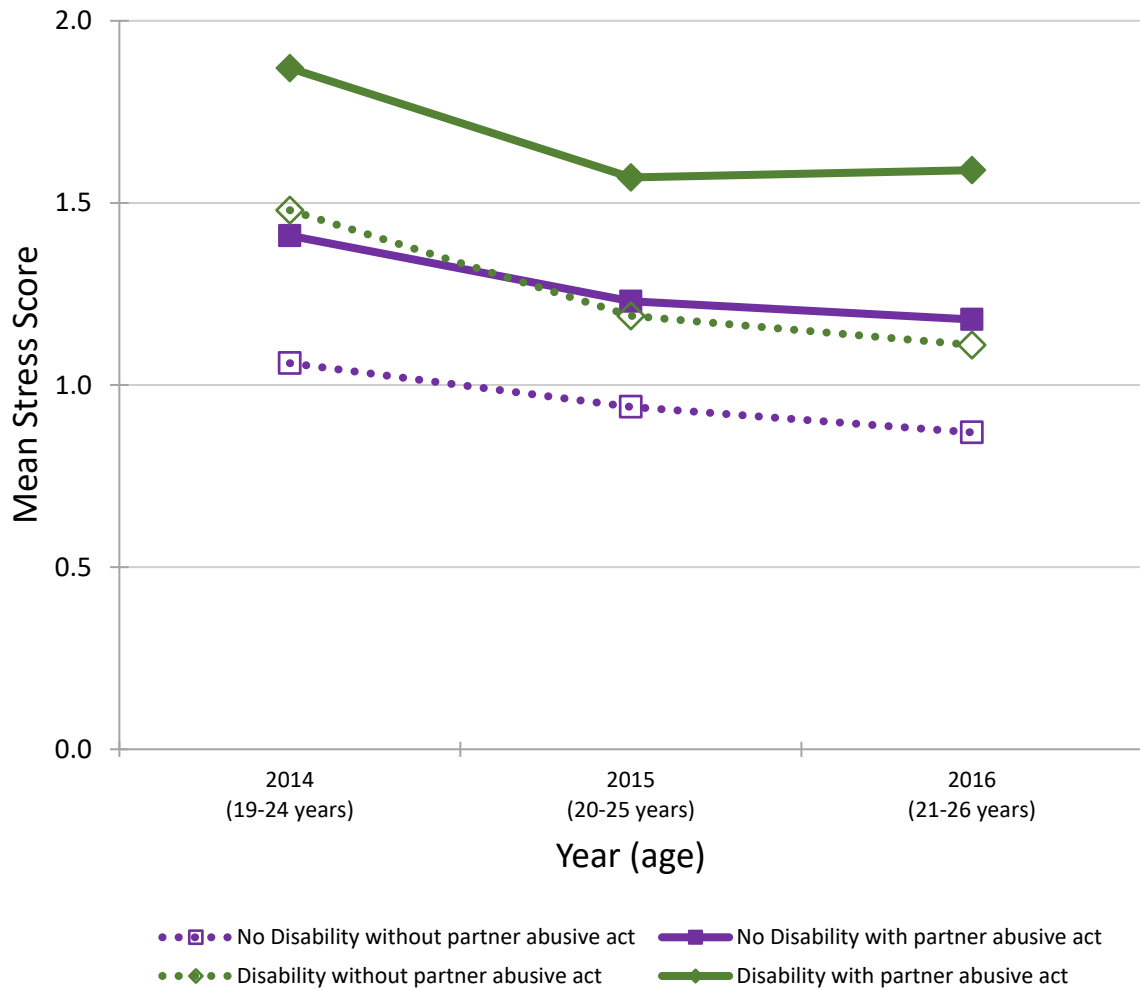
### 1989-95 cohort

**Figure 32 Stress across surveys for women born 1989-95 by disability status in 2012-3 and violent relationship status**



Of women from the 1989-95 cohort, those who reported having a disability at the start of the study period and had experienced a violent relationship during the study period had the highest stress levels and those who did not have a disability and had not had a violent relationship had the lowest stress levels (Figure 32). Women who reported having a disability and no violent relationship reported similar stress levels to those who did not have a disability but had a violent relationship.

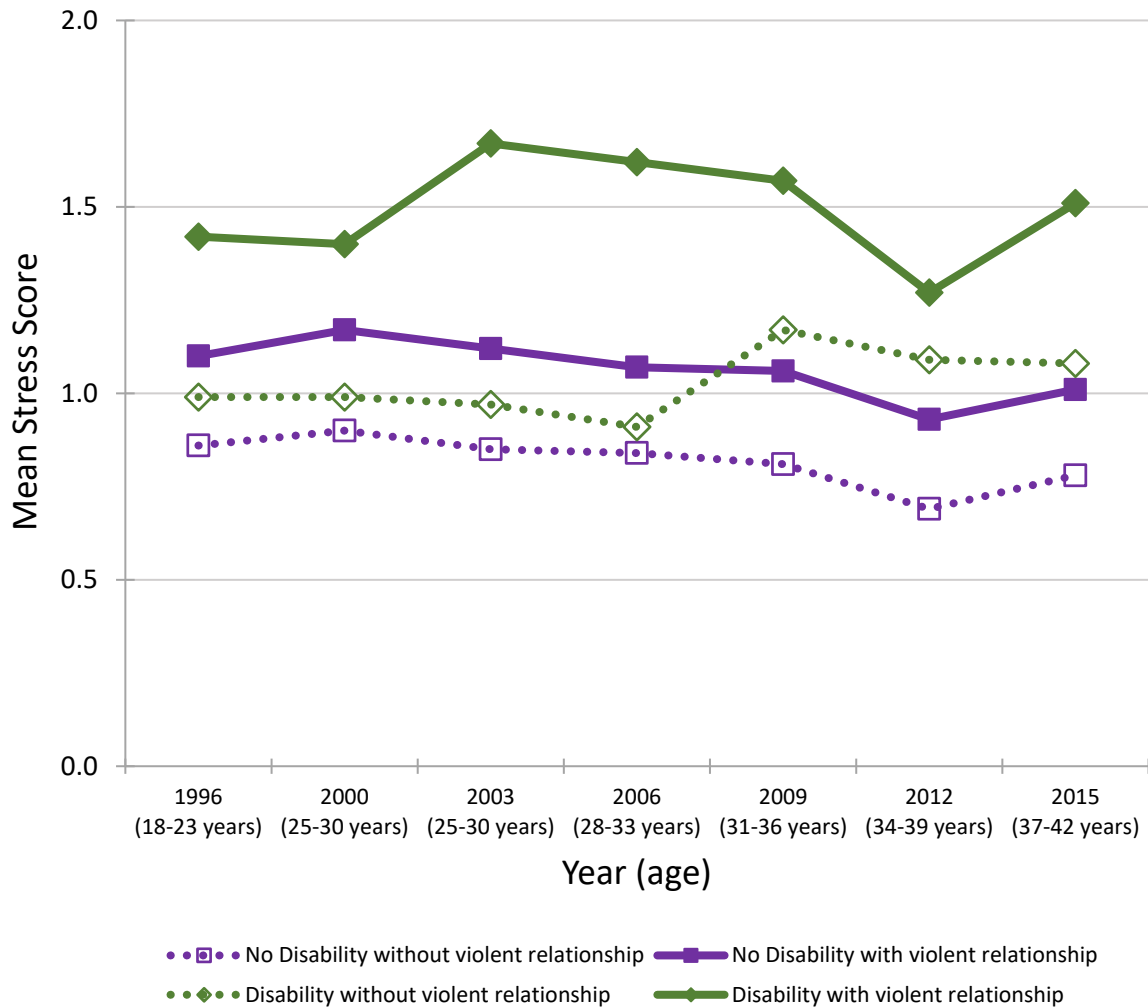
**Figure 33 Stress across surveys for women born 1989-95 by disability status in 2012-3 and having experienced a partner abusive act**



Of women from the 1989-95 cohort, those who reported having a disability at the start of the study period and had experienced a partner abusive act during the study period had the highest stress levels and those who did not have a disability and had not experienced a partner abusive act had the lowest stress levels (Figure 33). Women who reported having a disability and had not experienced a partner abusive act reported similar stress levels to those who did not have a disability but had experienced a partner abusive act.

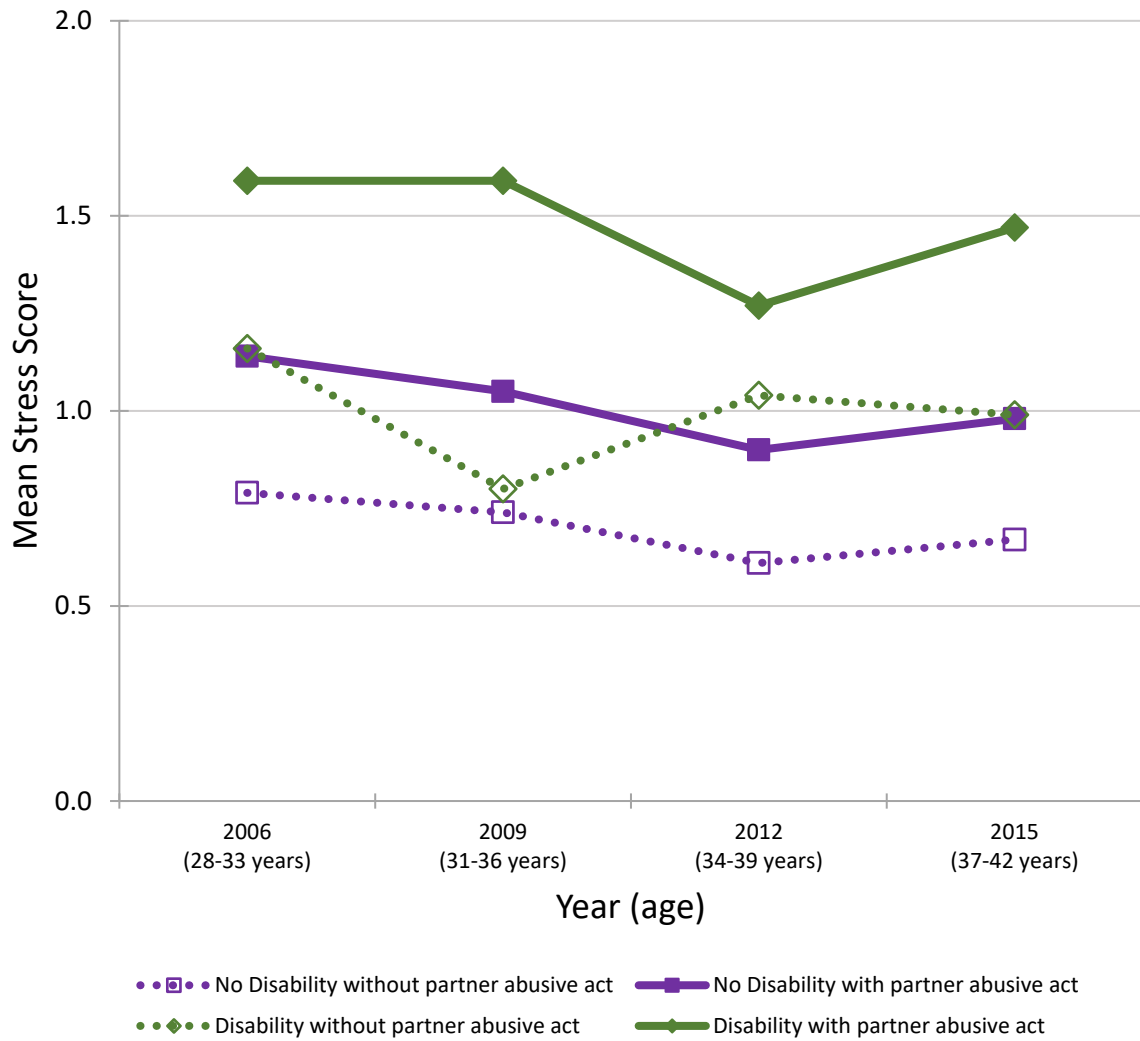
1973-78 cohort

Figure 34 Stress across surveys for women born 1973-78 by disability status and violent relationship status



Of women from the 1973-78 cohort, those who reported having a disability and a violent relationship were the most stressed. Women who did not have a disability and had or had not had a violent relationship had similar levels of stress to women who had a disability and had not experienced a violent relationship (Figure 34). These three groups of women were slightly less stressed than women who reported having a disability and a violent relationship.

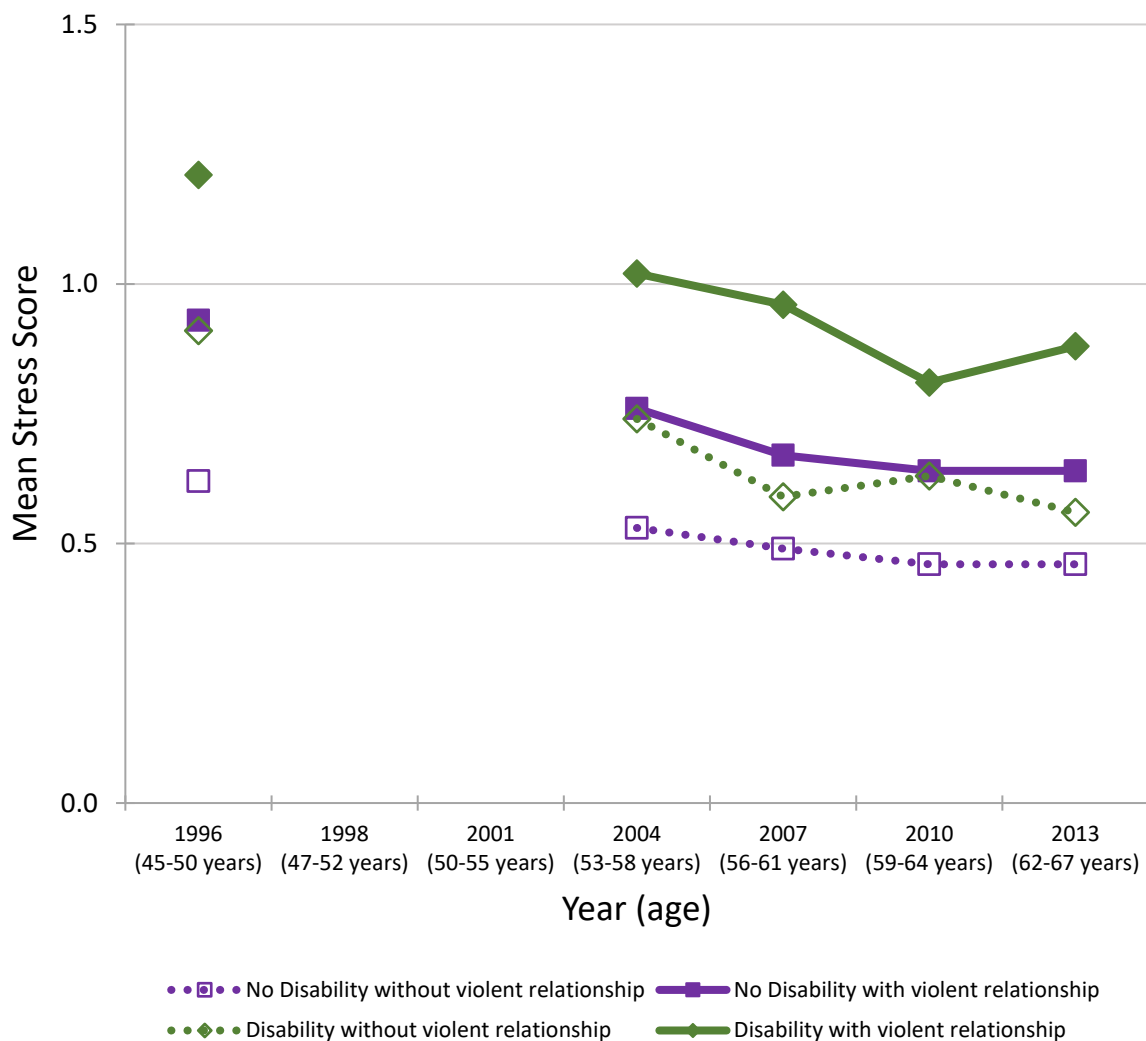
**Figure 35 Stress across surveys for women born 1973-78 by disability status and having experienced a partner abusive act**



Of women from the 1973-78 cohort, those who reported having a disability and had experienced a partner abusive act were the most stressed. Women who did not have a disability and had or had not experienced a partner abusive act had similar levels of stress to women who had a disability and had not experienced a partner abusive act (Figure 35). These three groups of women were slightly less stressed than women who reported having a disability and had experienced a partner abusive act.

## 1946-51 cohort

Figure 36 Stress across surveys for women born 1946-51 by disability status and violent relationship status



Women from the 1946-51 cohort who had a disability and reported a violent relationship had the highest levels of stress and those who did not have a disability and had not had a violent relationship had the lowest levels of stress (Figure 36). Women who reported having a disability and had not had a violent relationship reported similar stress levels to those who did not have a disability but had a violent relationship.

## Discussion

Women reported the worst physical health, mental health and stress levels when they reported both DV and the presence of a disability. Among women in middle age and early old age (1946-51 cohort), the deficit in health apparent for those experiencing DV was greater among women with a disability than those without a disability. Similar results were

found for physical functioning among women born 1973-78, with a large deficit in functioning being apparent for those experiencing DV, which was greater among women who reported a disability than those who did not. For women in early adulthood, psychological distress was highest for those reporting disability and DV. Interestingly, distress was similar for the groups who experienced DV with no disability and no DV with disability. Mental health for women from ages 18 to 42 was similar. However, as the women reached middle age, those with a disability and no DV experienced a downturn in mental health, in that it was slightly worse than that of women who experienced DV and no disability. This separation was apparent for women from the middle years until early old age, with disability and no DV being related to poorer mental health than DV and no disability. Across all cohorts, the results for stress clearly showed the highest stress levels among those with both DV and disability and lowest among those with no disability nor DV. Generally speaking, stress levels were similar for women who reported no disability with DV and those who reported a disability with no DV, across the cohorts.

The analyses undertaken were sequential cross-sectional in nature, to maximise the numbers in each group. As the disability status in the 1973-78 and 1946-51 cohorts could change over time, the direction of relationships between disability onset and health outcomes were not determined. Disability status was ascertained at the start of the study period (2012-3) only for the 1989-95 cohort, and so changes in disability status were not able to be considered. Results for this cohort should be treated cautiously, since women may or may not have continued to have a disability after the first survey. As onset of disability in relation to DV was not ascertained, it is not possible to determine whether disability preceded or occurred subsequent to DV. Despite these limitations, the results offer compelling evidence for associations between DV and poor health outcomes and provide evidence that associations between DV and poor health are most serious for women with a disability.

# Section 3: Prevention of domestic violence

## Background

A number of factors increase the risk of experiencing DV. However, the impact of these varies across cultures and contexts. Factors that have been found to have an association with DV include, but are not limited to, early experiences of childhood abuse and adversity, health, relationship status, socioeconomic status and age.

The relationship between childhood experiences and experiencing DV as an adult have consistently been reported in the literature. In a large study conducted by the World Health Organization, findings demonstrated a significant association between experiences of violence in childhood and experiences of DV in adulthood [30]. In addition, women who reported witnessing DV in their homes as children or who had experienced childhood sexual abuse were at increased risk of experiencing DV in the previous year [30]. Women in relationships where both she and her partner had experienced abuse in childhood had an increased risk of experiencing DV, compared to women who reported no childhood abuse for themselves nor their partner [30]. Similar findings were also reported in a population-based study conducted in New Zealand, where childhood exposure to DV for women and their partners were associated with current and previous DV experience [31]. Studies conducted in Germany [32], the Asia-Pacific [33] and Australia [34] have reported similar findings. The 2016 Australian Personal Safety Survey found that women who had experienced abuse before the age of 15 were almost three times more likely to experience DV than women who had not reported abuse before the age of 15 (36% and 13%, respectively). In addition, women who witnessed DV towards their mother before the age of 15 were more than twice as likely to experience DV, compared to women who had not witnessed DV towards their mother (34% and 15%, respectively) [35].

DV has been consistently related to poor physical and mental health [22, 36]. The cross-sectional designs of most DV studies have limited the inferences that can be made from the data, as the direction of these associations cannot be determined. However, in one ALSWH

study, longitudinal data clearly indicated that poorer mental health both preceded and followed the onset of DV among women born 1973-78 [22]. In the same study, bodily pain was also worse among women who had not yet but who would later experience DV than women who never reported DV [22].

Relationship status has also been found to contribute to risk of DV, although results differ across studies. In a study conducted with 100 women in two cities in Iran, divorced women were more than five times more likely to experience DV as compared to married women [37]. Similarly, women in non-cohabitating partnerships, or who were single, divorced or widowed were three times more likely to experience physical assault or sexual coercion by a partner, compared with married or cohabitating women in a population-based cross-sectional study conducted in Sweden [38]. Results from the World Health Organization's multi-country study suggested that women who were cohabitating were at increased risk of DV, compared to married women in some of the locations studied [30].

Other factors have also been found to increase risk for DV. In a Nigerian study, young age (15-24 years) and having a child increased the likelihood of experiencing DV [39]. In an Iranian study, women with low levels of education were more than one and a half times more likely to experience DV compared with women with a high levels of education [37]. High socioeconomic status was also found to be associated with a decreased risk of DV in the World Health Organization study, when comparing highest versus lowest socioeconomic status, although this relationship was only significant in 8 of the 15 locations studied and more strongly associated in unadjusted models [30]. In Australia, lower socioeconomic status and relationship status have been associated with DV [30], however, it is not clear whether these factors precede or occur subsequent to the onset of DV, or both.

While there are some consistencies among studies, the inconsistencies between countries highlight the need for country-specific information. Cross-sectional data cannot demonstrate the direction of relationships between factors such as health and socioeconomic status and DV. Prospective data provide the opportunity to identify the factors that temporally precede the onset of DV, which in turn, can pinpoint those times and circumstances where interventions might contribute to the prevention of DV.

## Aim

To investigate factors that contribute to the risk of experiencing DV in nationally representative Australian samples.



To meet this aim, which necessitates capturing the onset of DV, data from the two youngest ALSWH cohorts were analysed. Univariate models were used to evaluate associations between distal and proximal risk factors and DV.

## Results

### 3.1 Risk factors for domestic violence among women born 1989-95

For the 1989-95 cohort, adverse and other childhood events were associated with being in a violent relationship as an adult. Experiencing abuse or witnessing DV as a child was associated with a two fold increase in the probability of experiencing a violent relationship as an adult (Table 1). A similar increase was noted for household distress items, where women were exposed to substance use or criminal activity during childhood. As the number of adverse childhood domains increased, the probability of experiencing a violent relationship increased. Relative to not having experienced any adverse events in childhood, the probability of experiencing a violent relationship increased one and a half times for those who experienced one domain of childhood adversity, increasing to over five times for those who experienced six to eight domains of childhood adversity. Increases in the probability of experiencing a violent relationship in later life were also noted for parental divorce, being fostered or adopted, income support and childhood school absences.

**Table 1 Childhood risk factors for experiencing a violent relationship for women born 1989-95**

<b>Risk factor</b>		<b>%</b>	<b>PR (95% CI)</b>
<b>ACES subscale</b>			
Psychological abuse	No	14.0	
	Yes	29.2	2.09 (1.91, 2.28)
Physical abuse	No	15.4	
	Yes	37.6	2.44 (2.21, 2.69)
Sexual abuse	No	15.3	
	Yes	33.9	2.21 (2.00, 2.45)
Household substance abuse	No	13.9	
	Yes	29.3	2.11 (1.93, 2.31)
Household mental illness	No	14.0	
	Yes	22.8	1.63 (1.49, 1.79)
Criminal exposure	No	17.3	
	Yes	35.2	2.04 (1.68, 2.48)
Witnessed mother abused	No	15.8	
	Yes	34.0	2.15 (1.94, 2.39)
Witnessed father abused	No	16.7	
	Yes	37.9	2.27 (1.99, 2.60)
ACES - number of domains	0	10.4	
	1	15.5	1.50 (1.31, 1.71)
	2	20.3	1.96 (1.70, 2.27)
	3	25.2	2.43 (2.07, 2.85)
	4	35.9	3.46 (2.97, 4.04)
	5	44.7	4.31 (3.67, 5.06)
	6-8	53.0	5.11 (4.30, 6.06)
<b>Other childhood events</b>			
Divorced parents	No	14.8	
	Yes	24.4	1.65 (1.51, 1.81)
Parent(s) on social security	No	14.5	
	Yes	24.0	1.65 (1.51, 1.81)
Parent(s) unemployed	No	15.3	
	Yes	21.7	1.42 (1.30, 1.55)
Fostered/Adopted	No	17.3	
	Yes	45.8	2.65 (2.18, 3.21)
Youth allowance	No	15.3	
	Yes	25.2	1.65 (1.51, 1.81)
Absent from school	No	15.8	
	Yes	34.0	2.16 (1.95, 2.39)

*All variables were significant at p<0.0001*

For the 1989-95 cohort, adverse and other childhood events were also associated with experiencing a partner abusive act as an adult (Table 2). Relative to not having experienced any adverse events during childhood, the probability of experiencing a partner abusive act increased almost one and a half times for those who experienced abuse as a child, witnessed DV or experienced household distress (exposed to substance abuse, mental illness or criminal activity during childhood). As the number of adverse childhood domains increased, the probability of experiencing a partner abusive act increased. Relative to not having experienced any adverse events in childhood, the probability of experiencing a partner abusive act increased one and a third times for those who experienced one domain of childhood adversity, increasing to almost two times for those who experienced six to eight domains of childhood adversity. Increases in the probability of experiencing a partner abusive act in adulthood were also noted for parental divorce, being fostered or adopted, income support and childhood school absences.

**Table 2 Childhood risk factors for experiencing a partner abusive act for women born 1989-95**

<b>Risk factor</b>		<b>%</b>	<b>PR (95% CI)</b>
<b>ACES subscale</b>			
Psychological abuse	No	52.7	
	Yes	73.1	1.39 (1.34, 1.44)
Physical abuse	No	55.8	
	Yes	75.7	1.36 (1.30, 1.42)
Sexual abuse	No	55.1	
	Yes	77.4	1.41 (1.35, 1.47)
Household substance abuse	No	53.0	
	Yes	72.1	1.36 (1.31, 1.41)
Household mental illness	No	50.9	
	Yes	67.5	1.33 (1.28, 1.38)
Criminal exposure	No	57.5	
	Yes	74.9	1.30 (1.19, 1.42)
Witnessed mother abused	No	55.9	
	Yes	75.1	1.34 (1.28, 1.41)
Witnessed father abused	No	56.9	
	Yes	78.8	1.38 (1.31, 1.47)
ACES - number of domains	0	44.4	
	1	58.7	1.32 (1.25, 1.40)
	2	66.9	1.51 (1.42, 1.60)
	3	72.8	1.64 (1.54, 1.75)
	4	78.7	1.77 (1.66, 1.89)
	5	81.6	1.84 (1.71, 1.97)
	6-8	83.9	1.89 (1.74, 2.04)
<b>Other childhood events</b>			
Divorced parents	No	54.1	
	Yes	66.0	1.22 (1.18, 1.27)
Parent(s) on social security	No	53.6	
	Yes	66.2	1.24 (1.19, 1.28)
Parent(s) unemployed	No	54.0	
	Yes	64.3	1.19 (1.15, 1.24)
Fostered/Adopted	No	57.6	
	Yes	80.5	1.40 (1.28, 1.53)
Youth allowance	No	55.2	
	Yes	66.2	1.20 (1.15, 1.25)
Absent from school	No	56.2	
	Yes	72.4	1.29 (1.23, 1.35)

*All variables were statistically significant at  $p < 0.0001$*

Women from the 1989-95 cohort who reported income management difficulty, not having a university degree, who lived in non-metropolitan areas, who rated their health as fair or poor and who reported high levels of psychological distress in early adulthood (18-23 years) were more likely to experience a violent relationship at a later time (Table 3).

**Table 3 Risk factors in young adulthood for experiencing a violent relationship for women born 1989-95**

<b>Risk factor</b>		<b>%</b>	<b>PR (95% CI)</b>
Income management	Easy/Not too difficult	3.7	
	Sometimes difficult	6.3	1.69 (1.43, 2.00)
	Difficult all the time/Impossible	7.8	2.10 (1.77, 2.50)
Education	University degree or higher	4.0	
	Trade/Certificate/Diploma	8.1	2.03 (1.67, 2.46)
	Year 12 or less	5.1	1.29 (1.06, 1.55)
Area of residence	Major city	5.1	
	Inner regional	6.2	1.22 (1.03, 1.45)
	Outer regional/rural/remote	9.5	1.87 (1.53, 2.28)
General health	Excellent/Very good	4.5	
	Good	5.8	1.27 (1.09, 1.47)
	Fair/Poor	8.0	1.76 (1.47, 2.11)
Psychological distress	Low/Moderate (15-21)	4.1	
	High (22-29)	6.4	1.58 (1.34, 1.85)
	Very High (30-50)	8.4	2.07 (1.76, 2.44)

*All variables were statistically significant at  $p < 0.05$*

Women from the 1989-95 cohort who reported income management difficulty, not having a university degree, who lived in non-metropolitan areas, who rated their health as fair or poor and who reported high levels of psychological distress in early adulthood (18-23 years) were more likely to experience a partner abusive act at a later time (Table 4).

**Table 4 Risk factors in young adulthood for experiencing a partner abusive act for women born 1989-95**

<b>Risk factor</b>		<b>%</b>	<b>PR (95% CI)</b>
Income management	Easy/Not too difficult	27.5	
	Sometimes difficult	34.3	1.25 (1.15, 1.35)*
	Difficult all the time/Impossible	41.8	1.52 (1.40, 1.66)*
Education	University degree or higher	25.2	
	Trade/Certificate/Diploma	39.4	1.56 (1.42, 1.73)*
	Year 12 or less	34.1	1.35 (1.23, 1.49)*
Area of residence	Major city	33.0	
	Inner regional	31.6	0.96 (0.87, 1.05)
	Outer regional/rural/remote	35.7	1.08 (0.96, 1.22)
General health	Excellent/Very good	28.0	
	Good	35.4	1.26 (1.17, 1.36)*
	Fair/Poor	43.8	1.56 (1.43, 1.71)*
Psychological distress	Low/Moderate (15-21)	27.3	
	High (22-29)	37.1	1.36 (1.25, 1.47)*
	Very High (30-50)	46.2	1.69 (1.56, 1.83)*

*\*variables were statistically significant at  $p < 0.0001$*

### 3.2 Risk factors for domestic violence among women born 1973-78

For the 1973-78 cohort, adverse and other childhood events were associated with being in a violent relationship as an adult. Experiencing psychological or sexual abuse as a child, witnessing DV perpetrated against their mother (or mother figure) and exposure to household distress were associated with an almost two fold increase in the probability of experiencing a violent relationship as an adult (Table 5). Experiencing physical abuse and witnessing abuse perpetrated against their father (or father figure) were associated with a two fold increase in the probability of experiencing a violent relationship in adulthood. As the number of the adverse childhood experiences domains increased, the probability of experiencing a violent relationship increased. Relative to not having experienced any adverse events in childhood, the probability of experiencing a violent relationship increased 1.7 times for those who experienced one domain of childhood adversity, increasing to over three and a half times for those who experienced six to eight domains of childhood adversity. An increase in the probability of experiencing a violent relationship in adulthood was also noted for parental divorce.

**Table 5 Childhood risk factors for experiencing a violent relationship for women born 1973-78**

<b>Risk factor</b>		<b>%</b>	<b>PR (95% CI)</b>
<b>ACES subscale</b>			
Psychological abuse	No	19.9	
	Yes	39.2	1.97 (1.80, 2.15)
Physical abuse	No	21.2	
	Yes	46.9	2.21 (2.00, 2.45)
Sexual abuse	No	20.2	
	Yes	39.5	1.95 (1.79, 2.14)
Household substance abuse	No	20.0	
	Yes	39.5	1.98 (1.81, 2.16)
Household mental illness	No	21.1	
	Yes	33.6	1.59 (1.45, 1.75)
Criminal exposure	No	22.8	
	Yes	47.0	2.06 (1.68, 2.51)
Witnessed mother abused	No	21.9	
	Yes	38.9	1.77 (1.58, 1.99)
Witnessed father abused	No	22.6	
	Yes	47.9	2.12 (1.80, 2.49)
ACES - number of domains	0	15.9	
	1	27.1	1.70 (1.52, 1.91)
	2	33.1	2.08 (1.83, 2.36)
	3	36.1	2.27 (1.96, 2.64)
	4	49.2	3.10 (2.68, 3.57)
	5	54.2	3.41 (2.85, 4.08)
	6-8	57.7	3.63 (2.96, 4.44)
<b>Other childhood events</b>			
Divorced parents	No	23.3	
	Yes	29.8	1.28 (1.15, 1.43)

*All variables were statistically significant at  $p < 0.0001$*



For the 1973-78 cohort, adverse and other childhood events were associated with experiencing a partner abusive act as an adult. Experiencing abuse as a child, witnessing DV and exposure to household distress were associated with an increase of 1.36 to 1.52 in the probability of experiencing a partner abusive act as an adult (Table 6). As the number of the domains of adverse childhood experiences increased, the probability of experiencing a partner abusive act increased, but only slightly. A slight increase in the probability of experiencing a partner abusive act in adulthood was also noted for parental divorce.

**Table 6 Childhood risk factors for experiencing a partner abusive act for women born 1973-78**

<b>Risk factor</b>		<b>%</b>	<b>PR (95% CI)</b>
<b>ACES subscale</b>			
Psychological abuse	No	51.4	
	Yes	74.6	1.45 (1.39, 1.51)
Physical abuse	No	53.2	
	Yes	80.8	1.52 (1.45, 1.59)
Sexual abuse	No	52.2	
	Yes	72.6	1.39 (1.33, 1.45)
Household substance abuse	No	52.3	
	Yes	70.6	1.35 (1.29, 1.41)
Household mental illness	No	52.3	
	Yes	70.5	1.35 (1.29, 1.41)
Criminal exposure	No	55.0	
	Yes	78.6	1.43 (1.29, 1.58)
Witnessed mother abused	No	53.9	
	Yes	73.2	1.36 (1.28, 1.44)
Witnessed father abused	No	54.8	
	Yes	79.4	1.45 (1.34, 1.57)
ACES - number of domains	0	45.6	
	1	64.6	1.42 (1.34, 1.49)
	2	70.1	1.54 (1.45, 1.63)
	3	70.6	1.55 (1.44, 1.67)
	4	76.1	1.67 (1.54, 1.80)
	5	88.1	1.93 (1.79, 2.08)
	6-8	87.0	1.91 (1.74, 2.09)
<b>Other childhood events</b>			
Divorced parents	No	52.1	
	Yes	61.2	1.17 (1.10, 1.26)

*All variables were statistically significant at  $p < 0.0001$*

Women in the 1973-78 cohort who reported income management difficulty, not having a university degree, who lived in non-metropolitan areas, who rated their health as fair or poor and who had poor mental health in early adulthood (18-23 years) were more likely to experience a violent relationship at a later time (Table 7).

**Table 7 Risk factors in young adulthood for experiencing a violent relationship for women born 1973-78**

<b>Risk factors</b>		<b>%</b>	<b>PR (95% CI)</b>
Income management	Easy/Not too difficult	10.4	
	Difficult some of the time	14.6	1.40 (1.26, 1.55)
	Impossible/Difficult all the time	19.3	1.85 (1.65, 2.07)
Education	University degree	8.3	
	Trade/Certificate/Diploma	14.5	1.74 (1.43, 2.11)
	Year 12 or less	13.8	1.65 (1.38, 1.97)
Area of residence	Major city	12.4	
	Inner regional area	14.2	1.15 (1.04, 1.27)
	Outer regional/rural/remote	14.5	1.17 (1.04, 1.32)
General health	Excellent/Very Good	11.7	
	Good	14.3	1.22 (1.11, 1.35)
	Fair/Poor	17.4	1.48 (1.30, 1.70)
Mental health	Good	12.0	
	Poor	18.6	1.56 (1.41, 1.72)

*All variables were statistically significant at  $p < 0.05$*

Women in the 1973-78 cohort who reported income management difficulty, not having a university degree, who rated their health as fair or poor and who had poor mental health in early adulthood (18-23 years) were more likely to experience a partner abusive act at a later time (Table 8).

**Table 8 Risk factors in young adulthood for experiencing a partner abusive act for women born 1973-78**

<b>Risk factors</b>		<b>%</b>	<b>PR (95% CI)</b>
Income management	Easy/Not too difficult	35.7	
	Difficult some of the time	44.4	1.24 (1.17, 1.32)*
	Impossible/Difficult all the time	50.3	1.41 (1.32, 1.51)*
Education	University degree	34.7	
	Trade/Certificate/Diploma	40.2	1.16 (1.04, 1.28)*
	Year 12 or less	42.1	1.21 (1.11, 1.32)*
Area of residence	Major city	40.9	
	Inner regional area	40.5	0.99 (0.93, 1.05)
	Outer regional/rural/remote	40.8	1.00 (0.93, 1.07)
General health	Excellent/Very Good	36.1	
	Good	45.1	1.25 (1.18, 1.32)*
	Fair/Poor	50.5	1.40 (1.29, 1.51)*
Mental health	Good	38.2	
	Poor	52.0	1.36 (1.28, 1.44)*

*\*variables were statistically significant at  $p < 0.05$*

## Discussion

Adversity in childhood and demographic and health factors were all associated with the later onset of DV for women born 1973-78 and for women born 1989-95.

Women who reported adversity and abuse in childhood were more likely to experience DV in later life. This association was consistent across cohorts and, furthermore, the greater the number of adverse domains reported by women, the higher the probability that they would later experience DV. The findings also provide evidence that, at the univariate level, low socioeconomic status is associated with later DV, as is poor health.

More research is warranted in this area, to determine the complex and potentially additive relationships between the variables that are associated with a later onset of DV. However, this research suggests that it might be possible to target primary prevention measures towards women in early adulthood who have experienced adversity, ill health and/or socioeconomic stress. Qualitative and quantitative methods can be brought to bear on this issue.

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# Appendix 1: Prevalence of domestic violence by CALD background status

1989-95 cohort

Year (age)	Experience of domestic violence	Non-CALD % (n)	CALD % (n)
2013 (aged 18-23)	No violent relationship	86.59 (13692)	92.13 (714)
	Violent relationship	13.41 (2121)	7.87 (61)
2014 (aged 19-24)	No violent relationship	81.38 (6202)	85.36 (274)
	Violent relationship	18.62 (1419)	14.64 (47)
	No partner abusive act	52.74 (4029)	62.62 (201)
	Partner abusive act	47.26 (3610)	37.38 (120)
2015 (aged 20-25)	No violent relationship	80.27 (5143)	83.46 (212)
	Violent relationship	19.73 (1264)	16.54 (42)
	No partner abusive act	45.11 (2889)	56.52 (143)
	Partner abusive act	54.89 (3515)	43.48 (110)
2016 (aged 21-26)	No violent relationship	78.66 (5335)	84.21 (224)
	Violent relationship	21.34 (1447)	15.79 (42)
	No partner abusive act	41.41 (2810)	50.57 (134)
	Partner abusive act	58.59 (3975)	49.43 (131)



## 1973-78 cohort

<b>Year (age)</b>	<b>Experience of domestic violence</b>	<b>Non-CALD % (n)</b>	<b>CALD % (n)</b>
1996 (aged 18-23)	No violent relationship	87.64 (11236)	91.19 (1232)
	Violent relationship	12.36 (1584)	8.81 (119)
2000 (aged 22-27)	No violent relationship	84.74 (7319)	88.65 (703)
	Violent relationship	15.26 (1318)	11.35 (90)
2003 (aged 25-30)	No violent relationship	82.16 (6690)	85.11 (606)
	Violent relationship	17.84 (1453)	14.89 (106)
2006 (aged 28-33)	No violent relationship	79.58 (6656)	83.31 (589)
	Violent relationship	20.42 (1708)	16.69 (118)
	No partner abusive act	74.76 (5447)	70.14 (411)
	Partner abusive act	25.24 (1839)	29.86 (175)
2009 (aged 31-38)	No violent relationship	77.63 (5537)	82.08 (458)
	Violent relationship	22.37 (1596)	17.92 (100)
	No partner abusive act	59.03 (4206)	60.22 (336)
	Partner abusive act	40.97 (2919)	39.78 (222)
2012 (aged 34-41)	No violent relationship	77.61 (5327)	80.77 (420)
	Violent relationship	22.39 (1537)	19.23 (100)
	No partner abusive act	52.36 (3680)	55.12 (230)
	Partner abusive act	47.64 (3348)	44.88 (241)
2015 (aged 37-44)	No violent relationship	75.72 (4543)	79.27 (367)
	Violent relationship	24.28 (1457)	20.73 (96)
	No partner abusive act	46.99 (2844)	49.25 (230)
	Partner abusive act	53.01 (3208)	50.75 (237)

## 1946-51 cohort

<b>Year (age)</b>	<b>Experience of domestic violence</b>	<b>Non-CALD % (n)</b>	<b>CALD % (n)</b>
1996 (aged 45-50)	No violent relationship	83.44 (10095)	86.35 (1303)
	Violent relationship	16.56 (2004)	13.65 (206)
2004 (aged 53-58)	No violent relationship	81.28 (7974)	84.03 (842)
	Violent relationship	18.72 (1837)	15.97 (160)
2007 (aged 56-61)	No violent relationship	79.41 (7610)	81.72 (809)
	Violent relationship	20.59 (1973)	18.28 (181)
2010 (aged 59-64)	No violent relationship	78.73 (7104)	80.91 (729)
	Violent relationship	21.27 (1919)	19.09 (172)
2013 (aged 62-67)	No violent relationship	78.41 (6483)	78.64 (615)
	Violent relationship	21.59 (1785)	21.36 (167)
2016 (aged 65-70)	No violent relationship	78.02 (6080)	76.89 (569)
	Violent relationship	21.98 (1713)	23.11 (171)

## Appendix 2: Prevalence of domestic violence by disability status

1989-95 cohort

Year (age)	Experience of domestic violence	No disability % (n)	Disability % (n)
2013 (aged 18-23)	No violent relationship	87.18 (14143)	71.75 (259)
	Violent relationship	12.82 (2079)	28.25 (102)
2014 (aged 19-24)	No violent relationship	81.77 (6292)	67.96 (123)
	Violent relationship	18.23 (1403)	32.04 (58)
	No partner abusive act	53.36 (4115)	41.21 (75)
	Partner abusive act	46.84 (3597)	58.79 (107)
2015 (aged 20-25)	No violent relationship	80.57 (5211)	69.06 (96)
	Violent relationship	19.43 (1257)	30.94 (43)
	No partner abusive act	45.89 (2967)	31.16 (43)
	Partner abusive act	54.11 (3498)	68.84 (95)
2016 (aged 21-26)	No violent relationship	79.09 (5410)	65.13 (99)
	Violent relationship	20.91 (1430)	34.87 (53)
	No partner abusive act	42.09 (2880)	25.66 (39)
	Partner abusive act	57.91 (3962)	74.34 (113)

## 1973-78 cohort

<b>Year (age)</b>	<b>Experience of domestic violence</b>	<b>No disability % (n)</b>	<b>Disability % (n)</b>
1996 (aged 18-23)	No violent relationship	88.06 (12121)	79.62 (125)
	Violent relationship	11.94 (1643)	20.38 (32)
2000 (aged 22-27)	No violent relationship	85.24 (7909)	72.00 (72)
	Violent relationship	14.76 (1370)	28.00 (28)
2003 (aged 25-30)	No violent relationship	82.62 (7207)	64.13 (82)
	Violent relationship	17.38 (1516)	35.87 (33)
2006 (aged 28-33)	No violent relationship	80.14 (7149)	61.65 (82)
	Violent relationship	19.86 (1772)	38.35 (51)
	No partner abusive act	74.61 (5793)	56.84 (54)
	Partner abusive act	25.39 (1971)	43.16 (41)
2009 (aged 31-38)	No violent relationship	78.20 (5944)	53.62 (37)
	Violent relationship	21.80 (1657)	46.38 (32)
	No partner abusive act	59.45 (4515)	28.57 (20)
	Partner abusive act	40.55 (3079)	71.43 (50)
2012 (aged 34-41)	No violent relationship	78.19 (5683)	51.89 (55)
	Violent relationship	21.81 (1585)	48.11 (51)
	No partner abusive act	52.84 (3934)	32.73 (36)
	Partner abusive act	47.16 (3511)	67.27 (74)
2015 (aged 37-44)	No violent relationship	76.39 (4849)	51.52 (51)
	Violent relationship	23.61 (1499)	48.48 (48)
	No partner abusive act	47.38 (3034)	35.00 (35)
	Partner abusive act	52.62 (3369)	65.00 (65)

## 1946-51 cohort

<b>Year (age)</b>	<b>Experience of domestic violence</b>	<b>No disability % (n)</b>	<b>Disability % (n)</b>
1996 (aged 45-50)	No violent relationship	84.23 (11015)	66.76 (235)
	Violent relationship	15.77 (2063)	33.24 (117)
2004 (aged 53-58)	No violent relationship	82.06 (8547)	65.11 (209)
	Violent relationship	17.94 (1868)	34.89 (112)
2007 (aged 56-61)	No violent relationship	80.11 (8127)	66.49 (246)
	Violent relationship	19.89 (2018)	33.51 (124)
2010 (aged 59-64)	No violent relationship	79.51 (7526)	65.88 (278)
	Violent relationship	20.49 (1940)	34.12 (144)
2013 (aged 62-67)	No violent relationship	78.95 (6865)	64.63 (212)
	Violent relationship	21.05 (1830)	35.37 (116)
2016 (aged 65-70)	No violent relationship	78.52 (6430)	63.14 (209)
	Violent relationship	21.48 (1759)	36.86 (122)