# Changing multimorbidity profile of people diagnosed with HIV since 2012

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## Background

People with HIV are living longer and are increasingly likely to be living with other health conditions. Multimorbidity is the presence of 2 or more health conditions in addition to HIV. Multimorbidity can be measured by a Cumulative Illness Rating Scale (CIRS), which is a validated scale[1]. CIRS is associated with age[2] and predicts unplanned admissions[3] among people with HIV. Since 2012, people with HIV have been encouraged to start antiretrovirals soon after diagnosis and therefore may experience less exposure to HIV viremia. These people may have different multimorbidity profiles and require different care strategies than people living with HIV longer. We aimed to compare CIRS score and specific health conditions between those diagnosed before and after 1 March 2012.

## Methods

Attendees of Northern NSW Sexual Health Services between 1 December 2016 and 1 March 2019 were recruited and consented to participate in a study of multimorbidity. Participants indicated if they had most of their health care at the sexual health service or some or most of their care with a general practitioner (GP). The treating specialist completed CIRS for each participant.

Those diagnosed with HIV after 1 March 2012 were compared to those diagnosed prior with respect to demographic data, specific conditions, CIRS score and care characteristics. Comparison was by t-test for means and chi-squared statistic for proportions. The research was approved by North Coast NSW Human Research Ethics Committee.

## Results

Of 317 people recruited, 47 were diagnosed after 1 March 2012. This group were younger (mean age 44.4 vs 55.8yr, p <0.005) and are more likely to be female (10.6 vs 7.0%, p = 0.016).

This group is as likely to be diagnosed with mental health (31.8 vs 26.2%, p = 0.372) or alcohol or other drug issues (18.2 vs 15.2%, p = 0.548). They are less likely to have vascular disease (25.0 vs 42.2%, p = 0.052). (Table 1)

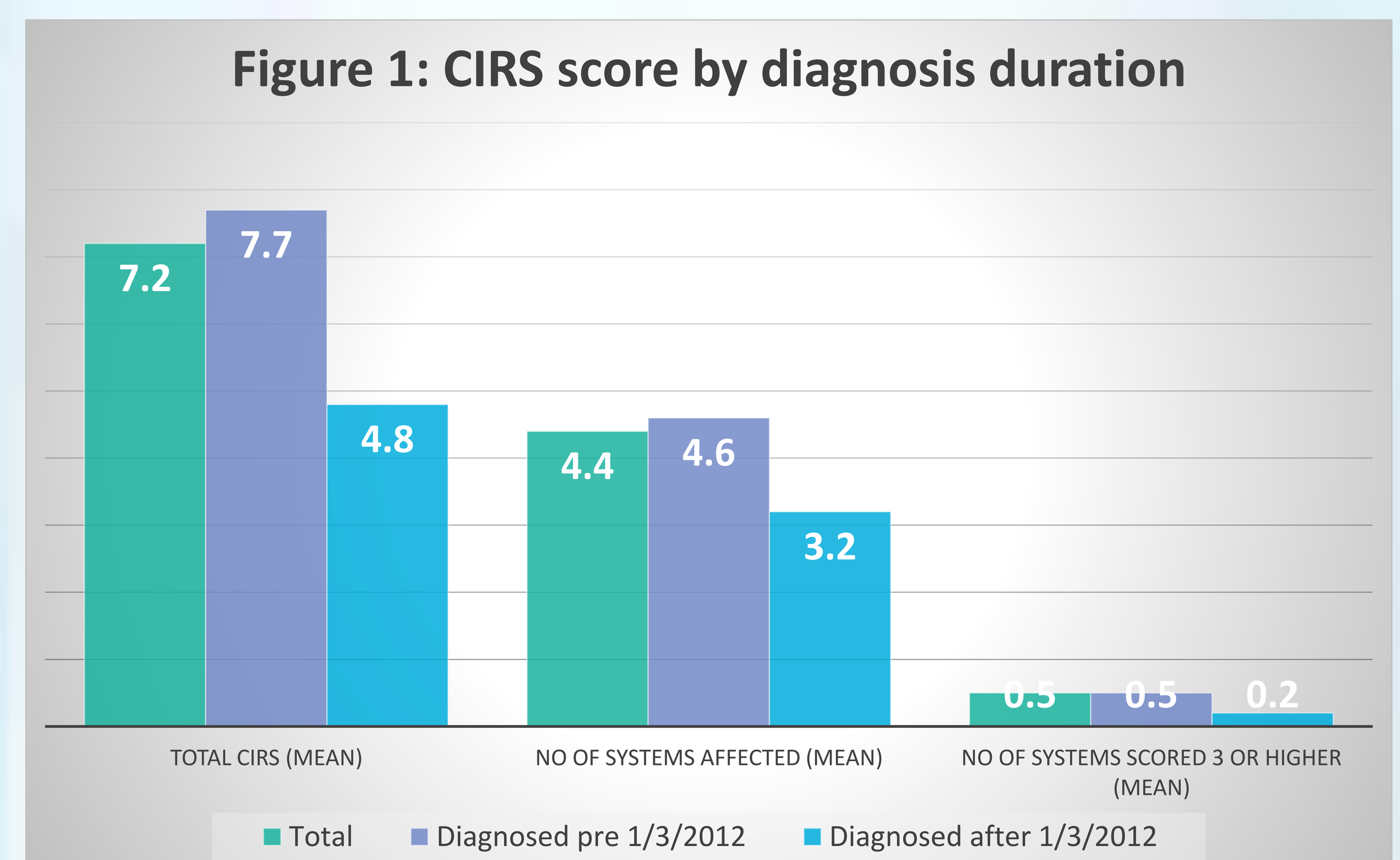
Table 1. Demographics and comorbidity by diagnosis duration

| | Total | Diagnosed pre 1/3/2012 | Diagnosed after 1/3/2012 | p value |
|---|---|---|---|---|
| Number | 317 | 270 | 47 | |
| Gender | | | | |
| male (%) | 92.7 | 93.0 | 89.4 | |
| female (%) | 7.3 | 7.0 | 10.6 | 0.016 |
| Age (mean, yrs) | 54.1 | 55.8 | 44.4 | <0.005 |
| Mental Health (%) | 24.6 | 26.2 | 31.8 | 0.372 |
| AOD# Issues (%) | 14.2 | 15.2 | 18.2 | 0.548 |
| Vascular disease (%) | 36.0 | 42.2 | 25.0 | 0.052 |

#Alcohol and other drug

Care status and CIRS score was available for 288 individuals. For 244 individuals diagnosed before 1 March 2012, 52.7% had shared care with a GP. For 44 diagnosed since 1 March 2012, 43.5% had shared care with a GP. Although this difference was not significant (p= 0.251), it indicates a trend towards specialist only care for those diagnosed more recently.

Those diagnosed after 1 March 2012 had lower mean CIRS scores (4.8 vs 7.7, p <0.005), less systems affected (3.2 vs 4.6, p< 0.005), and less systems affected by severe disease (0.2 vs 0.5, p = 0.045). (Figure 1)




## Discussion and conclusion

People diagnosed with HIV since 2012 have less vascular disease as expected due to being on average 11 years younger. However, mental health and drug and alcohol concerns are common for this group. Sexual health service clinicians need to be aware of best practice approaches for managing mental health and drug and alcohol issues as this group may not be accessing GPs. This may include referrals for counselling or to mental health or drug and alcohol specialists.

Despite the efforts of the NSW HIV Support Program, shared care is no more likely for those diagnosed more recently. HIV may be the first chronic health condition for an individual and engagement with health care may have been minimal prior to the diagnosis. The initial diagnosis may bring individuals into regular contact with an HIV specialist, thereby negating the need to establish contact with another doctor. In regional areas, lack of s100 GPs mean shared care is important and different strategies may be required to ensure early engagement with a supportive GP.

## References

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