FOCUS ON
CANCER SURVIVAL IN THE ACT

AN OVERVIEW OF CANCER SURVIVAL IN THE ACT

This Focus On report gives an overview of five-year cancer survival estimates for the ACT population for three ten-year periods: 1983–1992, 1993–2002 and 2003–2012. For the period 2003–2012, estimates are also reported for males, females and persons, and age-groups. Limited duration prevalence is also presented.

These statistics are important for monitoring cancer control efforts such as screening programs, as well as the effective treatment and management of cancers in the ACT. The analysis also allows for comparisons of outcomes with other jurisdictions and Australia as a whole.

WHAT IS SURVIVAL?

Relative survival is commonly used by cancer registries to measure the survival probability of people with a specific disease compared to those who do not have the disease over a period of time after diagnosis (usually five years).
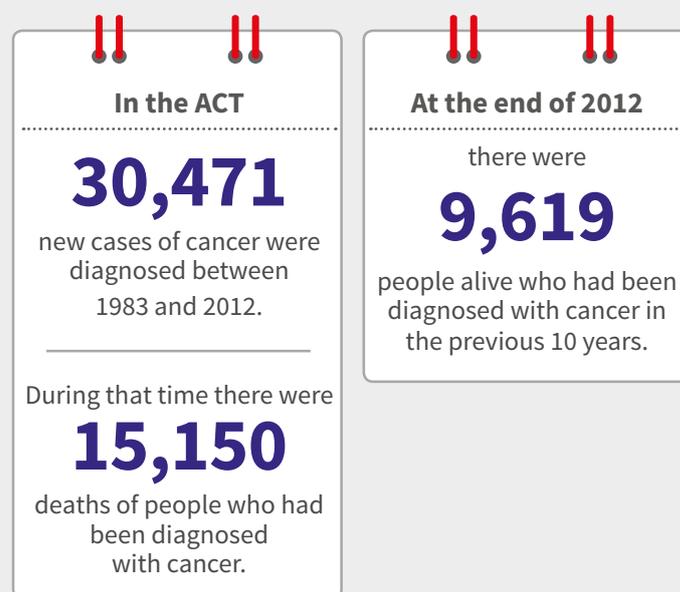
WHAT IS PREVALENCE?

Limited-duration prevalence is a measure of the number of people who were diagnosed with cancer within a given time period and who are still alive up to a specific date. This information is used by service planners and providers to ensure that future needs of cancer patients can be met in terms of health care facilities and services.

KEY MESSAGES

- Cancer survival is improving over time for most cancers.
- Younger people generally have better survival from cancer than older people.
- In the ACT, of the cancers with large enough numbers to provide reliable survival estimates, prostate cancer, breast cancer, melanoma, uterine cancer and bowel cancer had the highest survival; and pancreas, liver, lung, brain and stomach cancers had the lowest survival.
- Prostate cancer showed the greatest improvement in five-year survival. This was followed by bowel cancer and all leukaemias.
- Survival estimates for the ACT compare well with cancer survival for Australia.

TRENDS IN SURVIVAL

All cancers combined

In the ACT

30,471

new cases of cancer were diagnosed between 1983 and 2012.

During that time there were

15,150

deaths of people who had been diagnosed with cancer.

At the end of 2012

there were

9,619

people alive who had been diagnosed with cancer in the previous 10 years.

Survival for all cancers combined has improved considerably over time. For the most recent period (2003–2012), five-year survival for all cancers combined was 70.9%.

This was a significant improvement from 63.5% in the previous period (1993–2002), which in turn was a significant improvement from 56.9% in 1983–1992 (Figure 1). There was no significant difference in survival between males and females (Figure 2).

There were significant differences in survival between different age groups with those aged 0–44 having a higher five-year relative survival of 86.0% compared with a survival of 78.2% for 45–64 year olds and 60.5% for those aged 65 and above (Figure 3).

The improved cancer survival over time reflects a combination of improved treatment and earlier diagnosis across many cancer types. Compared with younger persons, there is a substantial disadvantage in survival for persons affected by cancer over the age of 65 years. This is in part due to older persons not undergoing more complex cancer treatments because of the risk of complications. Improving outcomes in this group remains a major challenge in cancer care.

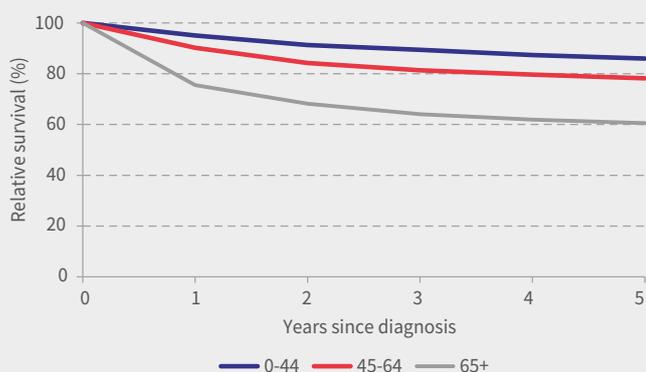## Figure 1: Survival by period, all cancers combined, persons, ACT, 1983–2012
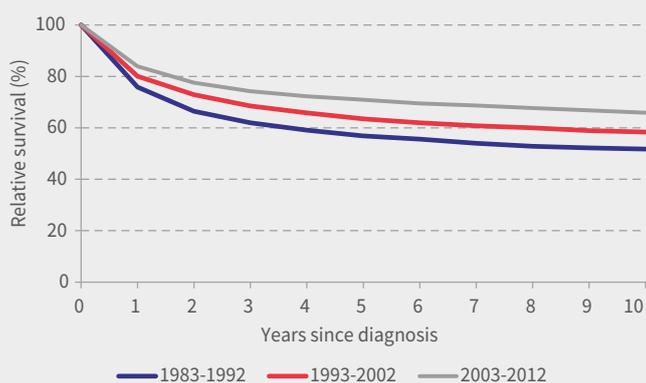
Source: ACT Cancer Registry

Figure 2: Survival by sex, all cancers combined, ACT, 2003–2012
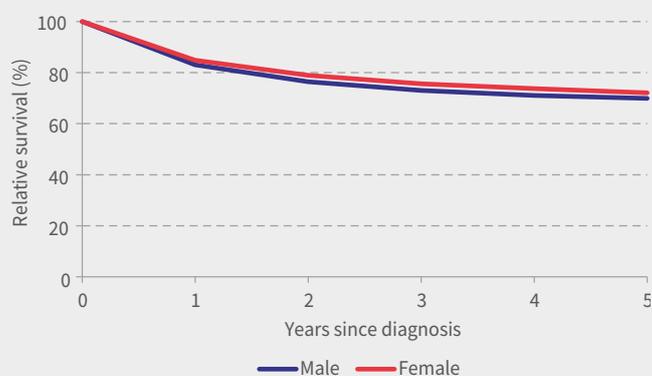
Source: ACT Cancer Registry

Figure 3: Survival by age group, all cancers combined, persons, ACT, 2003–2012

Source: ACT Cancer Registry

Which cancers had the highest and lowest survival rates?

For the period
2003–2012
the five-year survival estimates for all cancers combined were

69.9% FOR MALES

72.1% FOR FEMALES

and 70.9% for persons.

Table 1 summarises the five highest survival estimates by cancer type for males, females and persons, and Table 2 summarises the five lowest survival estimates. It should be noted that it is not possible to provide reliable survival estimates for cancers with low numbers, particularly for the ACT which has a relatively small population.

Table 1: Summary of five highest survival estimates by cancer type, males, females, persons, ACT, 2003–2012

Five-year relative survival (%)					
Males		Females		Persons	
Prostate	94.9	Melanoma	93.4	Prostate	94.9
Melanoma	88.6	Breast	91.5	Breast	91.5
Kidney	69.3	Uterine	76.0	Melanoma	90.8
Bowel	68.4	Bowel	72.5	Uterine	76.0
All leukaemias	63.9	Kidney	70.5	Bowel	70.3

Note: This table is based on cancers for which it was possible to calculate survival estimates for the ACT. Please note that there are other cancers which are likely to have high survival estimates (eg thyroid), but it was not possible to calculate reliable estimates because of small numbers of these cancers in the ACT.

Source: ACT Cancer Registry

Table 2: Summary of five lowest survival estimates by cancer type, males, females, persons, ACT, 2003–2012

Five-year relative survival (%)					
Males		Females		Persons	
Pancreas	11.1	Pancreas	8.5	Pancreas	9.6
Liver	13.8	Liver	15.6	Liver	14.7
Lung	17.1	Lung	21.8	Lung	19.2
Brain	22.6	Stomach	27.6	Brain	25.5
Stomach	28.6	Brain	28.7	Stomach	28.4

Note: This table is based on cancers for which it was possible to calculate survival estimates for the ACT. Please note that there are other cancers which are likely to have low survival estimates (eg mesothelioma), but it was not possible to calculate reliable estimates because of small numbers of these cancers in the ACT.

Source: ACT Cancer Registry

While it is not possible to provide reliable estimates for the rarer cancers for the ACT, it is possible to provide them for Australia. For Australia, for the period 2003–2012, the cancers with the highest five-year survival were testicular cancer, cancers of the lip, prostate and thyroid and melanoma of the skin. The cancers with the lowest five-year survival were pancreatic cancer, mesothelioma, cancers of unknown primary site, liver and lung.[1]

Which cancers showed the most and least improvement in survival rates?

The estimates for five-year relative survival for all cancers combined improved from

56.9% IN 1983–1992

to **70.9% IN 2003–2012**

Prostate cancer showed the greatest improvement in five-year survival, improving from 53.8% in 1983–1992 to 94.9% in 2003–2012. This was followed by bowel cancer and all leukaemias. These improvements are all statistically significant.

There was very little or no change between the two periods for melanoma, and cancers of the liver, bladder, pancreas, head and neck, and brain. Of these cancers, melanoma has high survival, while cancers of the liver, pancreas and brain have low survival.

Figure 4 shows the difference in five-year survival for the most common cancers over time.

Figure 4: Difference in five-year survival: 1983–1992, 1993–2002 and 2003–2012
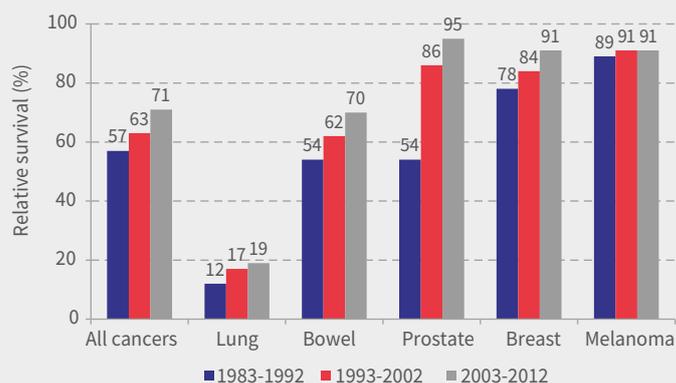
Source: ACT Cancer Registry

HOW DOES THE ACT COMPARE WITH AUSTRALIA?

The five most common cancers in the ACT during

2010–2014

for persons were

PROSTATE, BREAST, BOWEL, MELANOMA AND LUNG.

Figure 5 shows a comparison between ACT (2003–2012) and the latest available Australian (2006–2010) five-year survival estimates from the Australian Institute of Health and Welfare[1] for all cancers and the most common cancers.

Figure 5: Comparison of ACT five-year relative survival estimates for 2003–2012 with Australian estimates for 2006–2010, selected cancers, persons
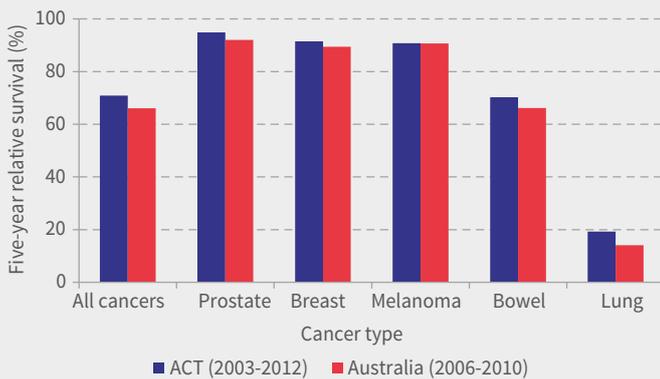
Source: ACT Cancer Registry, AIHW Australian Cancer Database[1]

WHERE TO NEXT?

The improved cancer relative survival over time reflects a combination of improved treatment and earlier diagnosis across many cancer types. It is probable that further improvements in survival could be achieved through early diagnosis with increased participation in the three national screening programs – BreastScreen, the National Bowel Cancer Screening Program and the National Cervical Screening Program. It is hoped that new treatments will also increase cancer survival.

Survival rates in the ACT are at least as high as those for Australia as a whole. Compared with younger persons, there is a substantial disadvantage in relative survival for persons affected by cancer over the age of 65 years. This is in part due to older persons not undergoing more complex cancer treatments because of the risk of complications. Improving outcomes in this group remains a major challenge in cancer care.

It is recognised nationally that there is a need for high quality data on the stage of cancer at diagnosis, treatments for cancers and the frequency of recurrence after treatment. This data would enable a greater understanding of variations in survival.

Notes

1. This Focus On report uses data collected by the ACT Cancer Registry which is linked with the National Death Index to identify people diagnosed with cancer in the ACT who have died interstate.

2. The expected survival for the general ACT population was estimated from life tables published by the Australian Bureau of Statistics.[2] Population data was also sourced from the ABS.

3. For a more detailed report on cancer survival and prevalence in the ACT see *Cancer survival and prevalence in the ACT: 1983 – 2012.*

References

1. Australian Institute of Health and Welfare. Cancer survival and prevalence in Australia: period estimates from 1982 to 2010. Canberra: Australian Institute of Health and Welfare, 2012.

2. Australian Bureau of Statistics. 3302.0.55.001 - Life Tables, States, Territories and Australia, 2011–2013. Commonwealth of Australia, 2014.