Research Summary:
Are Aboriginal people more likely to be diagnosed with advanced cancer?

Introduction
Cancer is the second most common cause of death for Aboriginal people, who are 60% more likely to die from the disease than other Australians. The spread of disease at diagnosis is one of the primary factors known to affect cancer survival, with greater spread of almost all types of cancer reducing a person’s chances of survival.

Spread of disease refers to how far from the organ or tissue of origin a cancer has spread and can be described as either localised, regional, distant or unknown.

Definitions of cancer spread classifications

<table>
<thead>
<tr>
<th>Classification</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Localised</td>
<td>Cancer that has not spread beyond the organ of origin</td>
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<tr>
<td>Regional</td>
<td>Cancer that has spread to other places close to the organ or tissue of origin</td>
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<tr>
<td>Distant</td>
<td>Cancer that has spread to other places far from the organ or tissue of origin</td>
</tr>
<tr>
<td>Unknown</td>
<td>Cancer that may or may not have spread from the organ or tissue of origin but this is not known at the time of diagnosis</td>
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Regional and distant spread of disease can also be referred to as advanced cancer. This is when cancer cells break away from the organ of origin and spread through the blood or lymphatic system to form new tumours in other areas of the body. For example a person may be diagnosed with breast cancer (localised cancer) which if untreated could then spread to other areas of the body, such as the lymph nodes under the arm (regional spread) or the lungs or liver (distant or metastatic spread).

Why is this study important?
Previous research has suggested that Aboriginal people are more likely than non-Aboriginal people to have advanced cancer when they are diagnosed and that this may explain observed gaps in cancer survival. However most previous research has tended to not take into account differences in cancer types when comparing spread of disease in Aboriginal and non-Aboriginal people.
This research is important as it is the first project to take into account the differences in the types of cancers diagnosed as well as age, gender, year of diagnosis, area of residence and socioeconomic status when looking at the differences in cancer spread at diagnosis between Aboriginal and non-Aboriginal people in NSW.

**What were the results?**

We found that compared with non-Aboriginal people, Aboriginal people diagnosed with cancer were more likely to be female, younger, over three times more likely to live in rural areas and twice as likely to live in the most disadvantaged areas of NSW.

For the majority of cancer types the spread of disease at diagnosis was found to be similar for both Aboriginal and non-Aboriginal people. The only cancers with which Aboriginal people were significantly more likely to be diagnosed at an advanced stage were cancers of the head and neck. Aboriginal people were seen to be 89% more likely to have regional spread for head and neck cancers, and 240% more likely to have distant spread than non-Aboriginal people.

Spread of disease at diagnosis of head and neck cancers has been found to be associated with various factors, including increasing age, socioeconomic disadvantage and frequency of dental visits. As some head and neck cancers can be detected during routine dental examinations, less frequent dental care for Aboriginal people may contribute to later diagnosis.

Aboriginal people are also more likely than non-Aboriginal people to be diagnosed with advanced breast, cervical and prostate cancers and melanoma although these differences, unlike head and neck cancers, were not found to be statistically significant. Aboriginal women being more likely to be diagnosed with advanced breast and cervical cancers is consistent with lower screening rates for Aboriginal women.

Overall, the research found that while Aboriginal people may be more likely to be diagnosed with advanced cancer for some cancer types, these differences are unlikely to be a major factor in the poorer cancer survival outcomes for Aboriginal people in NSW.

**How was this study done?**

This was a statistical analysis of NSW Central Cancer Registry (CCR) records of 2000 Aboriginal and 191 000 non-Aboriginal people with primary solid tumours diagnosed in NSW from 1 January 2001 to 31 December 2007. CCR information was used to obtain the person’s age, gender and area of residence, as well as information about when they were diagnosed, their type of cancer and cancer spread at diagnosis.

Information on Aboriginal status was also obtained from the NSW Admitted Patient Data Collection and the Australian Bureau of Statistics. In this analysis a person was determined to be Aboriginal if they were listed as Aboriginal and/or Torres Strait Islander in any of their records.
Recommendations

- Further Aboriginal cancer research is required to fully understand survival differences.
- The health care system needs to ensure that Aboriginal people have appropriate access to the best available health care in mainstream and Aboriginal Community Controlled Health Services.
- Health professionals working with Aboriginal communities need to be better informed of cancer risks for Aboriginal people so that they can better support this community to make more appropriate and timely health care choices.
- Increased community cancer awareness and resources specifically for Aboriginal people could encourage better understanding and earlier diagnoses for some cancers.
- There needs to be more practical efforts to increase the participation of Aboriginal people in screening programs in NSW.
- Actively facilitating talk about cultural difference has the potential to promote a more inclusive culture in cancer care.

Key message: Individuals, communities and health professionals need to be vigilant in detecting cancer in Aboriginal people as early as possible and ensuring that they receive the best available treatment.

Further information

This research summary has been developed from “Are Aboriginal people more likely to be diagnosed with more advanced cancer?”. This paper can be accessed online at: https://www.mja.com.au/journal/2015/202/4/are-aboriginal-people-more-likely-be-diagnosed-more-advanced-cancer

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