

Project title	Overcoming low Indigenous breast cancer survival
Collaborators	Dr Katie Meehan, Dr Shaouli Shahid, Dr Hilary Martin and Dr Ben Dessauvague
Institution	The University of Western Australia; Curtin University; Fiona Stanley Hospital; PathWest
Research description	<p>Breast cancer related deaths are rising among Indigenous women and we do not know why. Studies looking at age, clinical features, patient remoteness, and access to medical services only explain a fraction of this disadvantage.</p> <p>The aim of this project is to look at a large range of factors relating to the breast cancer that indigenous women get and how they are treated, any of which could worsen survival. These will include whether Indigenous women experience differences in the types of cells in their breast cancer; genes that control the effectiveness of anti-cancer drugs; and the way breast cancers are treated. None of these factors have been studied in Indigenous women before.</p> <p>These aims will be achieved by studying Indigenous women diagnosed with BrCa from 2001 to 2010 and comparable non-Indigenous women living in similar areas. Previous studies have shown that Indigenous women with breast cancer are 400% more likely to die of their disease compared with non-Indigenous women. The team will source cancer material, medical records and other data that was collected as a part of standard care throughout each person's therapy. Public Benefit Scheme drug prescription data will also be sought. The team will use the cancer tissue to explore biological differences between Indigenous and non-Indigenous breast cancer as well as assess immune cell involvement. The team will use normal tissue (within the cancer specimen) to test for damage to genes that activate anti-cancer drugs. Drug prescription data will be used to determine whether types of treatments or lack of compliance differs between Indigenous and non-Indigenous women. Interviews will be conducted at rural and remote sites throughout Western Australia for each group to explore attitudes to treatment and barriers to care. This research has the potential to discover key causes driving the high rate of breast cancer related deaths among Indigenous women. In addition, knowledge of deficiencies and barriers to treatment will allow the development of strategies to address these at specific time-points and locations where deficits occur.</p>
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