

Government of Western Australia North Metropolitan Health Service



# BREASTSCREEN WA ANNUAL REPORT 2022





Map of BreastScreen Clinics in Western Australia















### INTRODUCTION

2022 has been a year of triumphs as well as great challenges. The celebration when opening the new Joondalup assessment and screening clinic reflect proudly on the untiring efforts of our project and screening teams. This new screening and assessment clinic provides an exceptional facility for women in the north-west corridor of Perth and is the first expansion of assessment capacity for BSWA since 2014. Women can now have both screening and assessment in the central hub of Joondalup which serves the rapidly growing northern corridor. The ambience and design coupled with first class facilities makes it an exceptional resource for the WA community.

In 2022 we were able to repair the Mardalup clinic after the boxing day flood of 2021 restoring full screening capacity to the CBD. This clinic is an important central facility for staff training.

Our commitment to the LGBTQIA+ communities was showcased in the launch of the Screening Saves Lives campaign. The Health Promotion team were able to celebrate with pride events giving our commitment to an inclusive service.

Our project team are busy sourcing a new mobile which will be added to our fleet of units servicing rural, regional and remote WA. The new truck will allow us to expand our outreach services both in the metro and regional areas. Our mobile fleet in 2021-22 have screened more than 42,000 women in 109 sites. This mobile screening program requires real commitment from the staff covering more than 3000km while being away from home for months at a time. Unfortunately, this year the North-West mobile run is badly affected by the floods that devastated the road and bridge networks in the Kimberley isolating Derby and Fitzroy Crossing townships. Many of our Aboriginal communities have been left without homes and essential services. BSWA hopes to develop contingencies allowing most women to access screening, if at all possible, in 2023.

Future planning is essential for our service to ensure we meet population growth and breast assessment demand. Unfortunately, in the last 2 years the service has not been successful in securing funding for the new screening clinics planned for Butler and Melville. The Service has submitted business plans for extra assessment days at Joondalup. Shortage of assessment places is a key factor at preventing growth in screening and contributes to falling program participation and ongoing screening to assessment timeliness issues. The other factor causing real concern is lack of radiography staff. Our mobile teams are having difficulty fully staffing clinics. We expect this environment of staff shortages will grow as the current workforce tracks to retirement age. In 2025 we are likely to lose our Bunbury lease as the Service has received a lease termination notice. The prospect of moving from this commonwealth funded purpose built clinic at Bunbury is causing great concern as losing this key facility will have detrimental impacts on the South-West regional community. The South-West region is one of the fastest growing regions in WA and this community would be greatly disadvantaged not to have access to local assessment services and a fixed screening clinic. One of BSWA greatest risks is to ensure the services expands to meet population demand. Our current risk environment provides little certainty that we will systematically address population demand going forward.

In 2022 BSWA has supported a vibrant research program in areas of identified research priorities. Our talented research partners ensure the future of breast screening is informed by quality research data. Our research priorities will continue to improve our capacity to have a quality service informed by the best evidence.

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Acknowledgements: BreastScreen WA is grateful to Grace Yun, Manager Spatial Services Unit, Epidemiology in the Department of Health for expertise with the mapping within this report.

BreastScreen WA acknowledges the Noongar people as the traditional owners of the land on which we work and pays respect to their elders both past and present. North Metropolitan Health Service recognises, respects and values Aboriginal cultures as we walk a new path together.



Government of Western Australia North Metropolitan Health Service

BreastScreen WA

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### ABBREVIATIONS

Aboriginal and Torres Strait Islander (ATSI) Aboriginal Health Workers (AHW) Aboriginal Medical Services (AMS) Artificial Intelligence (AI) Assessment Services (AS) Australian Bureau of Statistics (ABS) Australian Society of Medical Imaging and Radiation Therapy (ASMIRT) BreastScreen WA (BSWA) Cancer Registry Western Australia (CRWA) Contrast Enhanced MRI (CEMRI) Contrast Enhanced Spectral Mammography (CESM) Consumer Reference Group (CRG) Culturally and Linguistically Diverse (CALD) Department of Health (DoH) General Practitioners (GPs) GP Liaison Officer (GPLO) Index of Relative Socio-economic Disadvantage (IRSD) ABS Innovative Futures (IF) Local Government Area (LGA) National Quality Management Committee (NQMC) North Metropolitan Health Service (NMHS) Board Picture Archiving Communication System (PACS) Screening Services (SS) Statistical Areas Level 2 (SA2) from the ABS State Coordination Unit (SCU) WA Country Health Service (WACHS) WA Primary Health Alliance (WAPHA) Western Australia (WA) Women and Newborn Health Service (WNHS)



Figure 1 Breastscreen WA Cannington Clinic

### STATE QUALITY COMMITTEE - REVIEWING QUALITY AT BREASTSCREEN WA

The independent State Quality Committee was established in 2011 in order to:

- Ensure the continued development of the Quality Culture at BreastScreen WA with an emphasis on continuous improvement, best practice and management of risks;
- Oversee compliance with the National Accreditation Standards developed by the National Quality Management Committee (NQMC) for BreastScreen Australia; and
- Oversee all quality activities at BreastScreen WA as directed by the North Metropolitan Health Service (NMHS) Board and Women and Newborn Health Service (WNHS).

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Role	Member	Role	Member
Independent Chair Medical Director	Dr Diana Hastrich Dr Liz Wylie	Designated Surgeon Epidemiologist	Dr Roshi Kamyab Dr Judy Straton
BreastScreen WA			,
Data Manager	Ms Helen Lund	Australian Society of Medical Imaging and Radiation Therapy	Ms Natalie Nuttall
Designated Radiologist	Dr Gareth Porter	Community Representative	Ms Jo Joyce
Chief Medical Imaging Technologist	Ms Carolyn Madeley	DoH Office of Population Health representative	Dr Belinda Burns
Senior Medical Imaging Technologist	Ms Julie Wilkes	Operations Manager BreastScreen WA	Mr Matt Shand
Designated Pathologist	Dr Felicity Frost		

### Members serving on the Committee

Dr Diana Hastrich, an experienced breast surgeon, has been the long-standing chair of the State Quality Committee. The Service benefits from her dedication and independent examination of quality within the Service and fearless advice to those inside and outside the Service.

### DR DIANA HASTRICH

The members of the State Quality Committee have dedicated their time to examining quality indicators and advising improvement of service provision for over a decade. BreastScreen WA (BSWA) service is vital to the women of Western Australia and the Committee is committed to encouraging excellence in cancer screening. We have an emphasis on continuous quality improvement, best practice and management of risk. We examine rates and types of clinical incidents; quality improvement plans and the National Accreditation Standards.

The service continues to maintain a high cancer detection rate which is key to having confidence in the program. In the areas of screening clinic and assessment capacity – especially providing these services to meet timeliness standards – it has been a challenge. The service continues to lobby for funding expansion so that the service can expand to meet population and community demand. The forward planning determines the level of service to be able to meet current and future participation and timeliness goals.

The Service is dynamic with a commitment to quality improvement through ongoing projects to improve effectiveness and quality of the Service. BSWA is committed to improving services for vulnerable groups including women who speak a language other and English at home, women of low socio-economic background, remote women and Aboriginal women. The rates of participation in Aboriginal women are an ongoing concern that require attention.

BSWA has an active research project contributing data and capacity in driving quality. The service also seeks regular client feedback. Clinical incidents occur at a very low level, but all are followed-up and managed appropriately.

It is important that BSWA funding allows participation to meet key standards to drive down morbidity and mortality from breast cancer in the Western Australian community.



Dr Di Hastrich Chair, State Quality Committee

### MOBILE AND FIXED CLINICS

BSWA has 4 mobile units servicing over 100 sites throughout Western Australia. The mobile unit will travel over 3000km on the Northern run from Perth to Wyndham; a significant commitment from the mobile staff to spend several months away from home. Women from the Ngaatjatjarra Pitjantjatjara lands on the WA/NT border travel over 1660km round trip to reach the BreastScreen mobile unit at Laverton – a significant commitment of the Aboriginal women to obtain a breast screen. BSWA welcomes the new mobile truck planned for the 3<sup>rd</sup> quarter of 2023 and its capacity to respond to new rural sites, longer stays in growing centres and more centres receiving annual visits. The new mobile truck also boosts the capacity to run more screening opportunities and outreach services in the metropolitan area.

BSWA's rural mobile service has an ongoing quality improvement initiative to ensure that length of stay matches the local demand and adjusts service capacity to meet unexpected demand. This initiative is vital in mining regions that experience regular fluxes in population in response to metal prices and more recently the South-West region that experienced population flux during the pandemic. In 2023 we are expecting major disruptions to the mobile schedule in the Kimberley regions due to devastating floods that have taken out the bridges and the road network. Contingencies will be developed as the Government recovery phase is established.

		- /
Category and age group	Total	%
ALL WOMEN <50 YEARS	7,450	17.7
ALL WOMEN 50-74 YEARS	32,206	76.6
ALL WOMEN >=75 YEARS	2,394	5.7
Total ALL Women	42,050	
ATSI WOMEN <50 YEARS	359	20.0
ATSI WOMEN 50-74 YEARS	1,373	76.3
ATSI WOMEN >=75 YEARS	67	3.7
ATSI ALL	1799	4.3
CALD WOMEN <50 YEARS	911	30.9
CALD WOMEN 50-74 YEARS	1,919	65.1
CALD WOMEN >=75 YEARS	115	3.9
CALD ALL	2,945	7.0

### SUMMARY DATA FROM MOBILE VISITS 2021 -2022

All screening episodes are included in this table

A total of 42,050 screening episodes in the mobile service in 2021-2022 with 4.3% screens from Aboriginal women and 7.0% with a culturally and linguistically diverse background.

Our mobile program went to 109 sites. Our largest site is Geraldton in the Mid-west (4275 women) followed by Busselton in the South-West (3175 women). Other sites screening more than 3000 women by mobile unit is Armadale (outer-metro) and Kalgoorlie (Goldfields). Sites screening the most Aboriginal women are from the Kimberley with Broome and Fitzroy Crossing screening 251 and 224 women respectively while Geraldton in the mid-west screened 171 aboriginal women. Some towns in the Kimberley are Aboriginal settlements and have the highest proportion of ATSI clients. These settlements include Lombadina, Fitzroy Crossing, Warmun and Bidyadanga. Mobile visits with the highest proportion of culturally and linguistically diverse women include Parliament house, Wiluna, Bandyup Prison, Booragoon, Newman and Carnarvon, reflecting a diverse array of communities with significant CaLD populations.

### MOBILE VISIT BY TOWN OR SUBURB 2021-2022

Town or Suburb	All women <50 years	All women 50-74 years	All women >=75 years	Total all women	ASTI	CaLD	% ATSI	% CaLD
ARMADALE	470	2472	158	3100	42	359	1.35	11.58
AUGUSTA	21	272	35	328	S	10	<2	3.05
BANDYUP	25	20	0	45	9	8	20.00	17.78
BEVERLEY	17	169	20	206	S	5	<2	2.43
BIDYADANGA	10	27	S	38	31	1	81.58	2.63
BODDINGTON	19	132	5	156	0	2	0.00	1.28
BOORAGOON	259	493	46	798	0	130	0.00	16.29
BOYUP BROOK	26	126	24	176	S	5	<2	2.84
BRIDGETOWN	105	565	46	716	7	19	0.98	2.65
BROOKTON	5	60	13	78	S	5	<2	6.41
BROOME	363	1060	21	1444	251	96	17.38	6.65
BRUCE ROCK	11	75	14	100	S	7	<2	7.00
BULLSBROOK	82	146	S	229	S	16	<2	6.99
BUSSELTON	419	2522	234	3175	12	114	0.38	3.59
BYFORD	122	364	22	508	11	44	2.17	8.66
CARNARVON	86	340	22	448	53	69	11.83	15.40
CLAREMONT	26	123	13	162	0	11	0.00	6.79
COLLIE	105	735	52	892	8	30	0.90	3.36
COOLGARDIE	5	36	S	42	S	1	<10	2.38
CORRIGIN	9	86	11	106	S	0	<2	0.00
COTTESLOE	71	164	13	248	0	22	0.00	8.87
CRANBROOK	9	61	5	75	S	1	<10	1.33
CUE	S	17	0	19	S	1	<10	5.26
CUNDERDIN	25	77	11	113	S	6	<2	5.31
DALWALLINU	12	77	9	98	5	1	5.10	1.02
DARKAN	16	52	S	69	S	0	<10	0.00
DENHAM	31	57	S	92	7	4	7.61	4.35
DENMARK	35	367	23	425	S	15	<2	3.53
DERBY	43	188	8	239	82	10	34.31	4.18
DONGARA	49	343	46	438	7	10	1.60	2.28
DUMBLEYUNG	13	48	S	62	S	1	<10	1.61
DUNSBOROUGH	250	811	66	1127	8	41	0.71	3.64
ESPERANCE	256	1373	147	1776	36	55	2.03	3.10
EVERY WOMAN EXPO	108	206	6	320	S	47	<2	14.69
EXMOUTH	61	167	9	237	S	12	<2	5.06
FITZROY CROSSING	70	186	15	271	224	7	82.66	2.58
FREMANTLE MOBILE	136	284	25	445	S	45	<2	10.11
GERALDTON	569	3432	274	4275	171	286	4.00	6.69
GINGIN	31	223	22	276	S	7	<2	2.54
GNOWANGERUP	10	66	0	76	S	5	<2	6.58
GOOMALLING	24	100	11	135	S	6	<2	4.44

Town or Suburb	All women <50 vears	All women 50-74 vears	All women >=75 vears	Total all women	ASTI	CaLD	% ATSI	% CaLD
HALLS CREEK	21	72	•	93	59	7	63 44	7 53
HARVEY	50	339	32	421	5	, 54	1 19	12.83
HOMELESS PROJECT MOORE ST	50	555	52	8	5	0	5	0.00
HYDEN	9	41	7	57	0	2	0.00	3.51
JERRAMUNGUP	6	43	S	52	0	2	0.00	3.85
JURIEN	41	324	40	405	6	12	1.48	2.96
KALBARRI	42	180	15	237	5	9	2.11	3.80
KALGOORLIE	495	1631	51	2177	87	198	4.00	9.10
KAMBALDA	19	97	S	117	S	16	<2	13.68
KARRATHA	519	700	13	1232	68	144	5.52	11.69
KATANNING	54	364	32	450	8	68	1.78	15.11
KELLERBERRIN	14	99	17	130	S	3	<2	2.31
KEMH MOBILE	87	173	S	262	S	27	<2	10.31
KOJONUP	30	161	18	209	7	10	3.35	4.78
KOORDA	5	35	6	46	0	1	0.00	2.17
KULIN	14	73	7	94	9	3	9.57	3.19
KUNUNURRA	118	305	5	428	78	39	18.22	9.11
KWINANA	31	49	S	82	7	9	8.54	10.98
LAKE GRACE	28	97	13	138	S	5	<2	3.62
LANCELIN	12	152	18	182	S	11	<2	6.04
LAVERTON	S	22	S	24	10	0	41.67	0.00
LEONORA	9	29	S	40	8	3	20.00	7.50
LOMBADINA	16	36	S	55	51	0	92.73	0.00
MANJIMUP	84	600	53	737	6	49	0.81	6.65
MARGARET RIVER	247	967	42	1256	S	65	<2	5.18
MEEKATHARRA	S	28	S	34	17	0	50.00	0.00
MERREDIN	55	241	25	321	6	9	1.87	2.80
MOORA	57	236	40	333	23	10	6.91	3.00
	S	5/	S 20	64	S	0	<10	0.00
	62	634	20	/16	10	26	1.40	3.63
	12	40	10	55	8	4	14.55	7.27
	13	30	10	50	5	2	12.82	7.69
NANNIB	25	132	16	173	5	2	~10	1 16
NAREMBEEN	12	65	10	89	0	5	0.00	5.62
NARROGIN	129	684	59	872	22	39	2 52	4 47
NEWMAN	40	132	s	173	24	28	13.87	16.18
NORSEMAN		29	S	35	S	1	<10	2.86
NORTHAM	134	780	83	997	29	68	2.91	6.82
NORTHAMPTON	24	175	11	210	8	3	3.81	1.43
ONSLOW	9	39		48	5	3	10.42	6.25
PARABURDOO	13	31		44	S	4	<10	9.09
PARLIAMENT HOUSE	55	99	S	155	0	33	0.00	21.29

Town or Suburb	All women <50 years	All women 50-74 years	All women >=75 years	Total all women	ASTI	CaLD	% ATSI	% CaLD
PEMBERTON	- 38	- 196	9	243	ç	10	<2	4 1 2
PINGFLLY	15	85	11	111	s	1	<10	0.90
PINJARRA	36	432	36	504	s	16	<2	3.17
QEII	91	152	s	245	S	34	<2	13.88
QUAIRADING	10	98	17	125	S	2	<10	1.60
RAVENSTHORPE	13	101	17	131	S	8	<2	6.11
ROEBOURNE	20	50	S	71	19	5	26.76	7.04
SERPENTINE	49	232	20	301	S	13	<2	4.32
SOUTH HEDLAND	181	479	S	662	74	92	11.18	13.90
SOUTHERN CROSS	14	67	6	87	S	5	<10	5.75
TAMBELLUP	9	34	9	52	S	0	<10	0.00
THREE SPRINGS	14	102	5	121	5	2	4.13	1.65
TOM PRICE	59	67	S	127	10	14	7.87	11.02
TOODYAY	40	522	29	591	S	23	<2	3.89
WAGIN	20	179	8	207	S	11	<2	5.31
WARMUN	9	21	S	33	27	0	81.82	0.00
WAROONA	35	251	18	304	S	27	<2	8.88
WICKEPIN	12	104	15	131	0	5	0.00	3.82
WILLIAMS	22	84	11	117	0	0	0.00	0.00
WILUNA	S	7	S	11	6	2	54.55	18.18
WONGAN HILLS	31	121	13	165	S	6	<2	3.64
WYALKATCHEM	S	52	7	63	S	0	<2	0.00
WYNDHAM	12	25	S	39	15	0	38.46	0.00
YARLOOP	5	42	S	50	S	2	<10	4.00
YORK	23	278	32	333	7	7	2.10	2.10
Total	7450	32206	2394	42050	1799	2945	4.28	7.00

s – data has been suppressed if values are small





### MOBILE SCHEDULE 2023

Town / Centre	Town / Centre Region Esti		Date TBC
	<b>C</b> 144	screening days	
Dunsborough SW	SW	43	31/10/22
Kulin SE	GS & WHEATBELT	4	22/12/2022
Lancelin NW	MID-WEST	8	3/01/2023
Pemberton SW	SW	10	04/01/2023
Hyden SE	GS & WHEATBELT	3	6/01/2023
Corrigin SE	GS & WHEATBELT	5	11/01/2023
Gingin NW	GS & WHEATBELT	12	13/01/2023
Brookton SE	GS & WHEATBELT	4	18/01/2023
Pingelly SE	GS & WHEATBELT	5	18/01/2023
Busselton SW	SW	130	19/01/2023
Boddington SE	GS & WHEATBELT	6	02/02/2023
Esperance SE (Annual)	Goldfields & Esperance	15	13/02/2023
Dalwallinu NW	GS & WHEATBELT	4	17/02/2023
Mt Magnet NW	MID-WEST	3	24/02/2023
Wyndham NW	NW KIMBERLEY	2	27/02/2023
Cue NW	MID-WEST	-	01/03/2023
Meekatharra NW	MID-WEST	- 3	03/03/2023
Katanning SF	GS & WHEATBELT	18	08/03/2023
Newman NW		7	10/03/2023
Bidvadanga NW		2	22/02/2023
Lombadina NW		2	23/03/2023
Margarot Divor SM/		5	29/03/2023
Records NIM		55	50/05/2025
Broome NW		44	03/04/2023
Augusta SW	SVV	14	05/04/2023
Bandyup women's Prison	METRO	1	26/04/2023
Armadale OM	METRO	55	2//04/2023
Narembeen SE	GS & WHEATBELT	4	16/05/2023
Bruce Rock SE	GS & WHEATBELT	4	22/05/2023
Quairading SE	GS & WHEATBELT	6	26/05/2023
Cunderdin SE	GS & WHEATBELT	5	6/06/2023
Kellerberrin SE	GS & WHEATBELT	6	13/06/2023
*Derby NW	NW KIMBERLEY		
Merredin SE	GS & WHEATBELT	13	21/06/2023
*Fitzroy Crossing NW	NW KIMBERLEY		
Southern Cross SE	Goldfields & Esperance	4	11/07/2023
Geraldton NW (Annual)	MID-WEST	49	18/07/2023
Coolgardie SE	Goldfields & Esperance	2	18/07/2023
Leonora SE	Goldfields & Esperance	2	21/07/2023
Wiluna SE	Goldfields & Esperance	2	26/07/2023
Laverton SE	Goldfields & Esperance 4		31/07/2023
Kununurra NW	NW KIMBERI FY 19		11/07/2023
Kalgoorlie SF	Goldfields & Esperance 74		7/08/2023
Wyndham NW		37	10/08/2023
Maniimun SW	۲۱۸/		14/08/2023
Warmun NW		2	16/08/2023
Halls Crook NM/		<u>∠</u> Л	10/00/2023
		4	10/00/2023

South Hedland NW	NW PILBARA	18	04/09/2023
QE II OM	METRO	13	26/09/2023
Bridgetown SW	SW	TBC	27/09/2023
Roebourne NW	NW PILBARA	3	02/10/2023
Karratha NW	NW PILBARA	40	05/10/2023
КЕМН ОМ	METRO	7	16/10/2023
Parliament House OM	METRO	3	25/10/2023
Beverley SE	GS & WHEATBELT	9	30/10/2023
Fremantle / TBC	METRO	TBC	07/11/2023
York SE	GS & WHEATBELT	16	10/11/2023
Boyup Brook SW	SW	9	10/11/2023
Kambalda SE	Goldfields & Esperance	5	21/11/2023
Nannup SW	SW	8	24/11/2023
Norseman SE	Goldfields & Esperance	3	29/11/2023
Tom Price NW	NW PILBARA	6	01/12/2023
Northam SE	GS & WHEATBELT	42	4/12/2023
Esperance SE	Goldfields & Esperance	60	4/12/2023
Paraburdoo NW	NW PILBARA	2	12/12/2023
Onslow NW	NW PILBARA	2	14/12/2023
Exmouth NW	NW PILBARA	11	19/12/2023

**\*Note**: The scheduled visits to Derby and Fitzroy Crossing for 2023 have been cancelled due to major flooding and road/bridge damage

### ORGANISATION STRUCTURE, PLANNING, PRIORITIES, ISSUES AND ACHIEVEMENTS



### **TABLE – ORGANISATIONAL MANAGEMENT STRUCTURE – BSWA**

### MANAGEMENT STRUCTURE

BSWA comprises a State Coordination Unit (SCU), Screening Services (SS) and Assessment Services (AS). BSWA provides the SCU and SS functions and provides breast assessment at Royal Perth Hospital (RPH), Sir Charles Gairdner Hospital (SCGH), Fiona Stanley Hospital (FSH), the Bunbury Screening and Assessment clinic and the Joondalup Screening and Assessment Clinic Screening is conducted at permanent locations across the Perth Metropolitan area as well as regional sites, while mobile units complete the coverage of the state every two years, with some larger centres visited annually.

Assessment is individually funded and managed by FSH, RPH and SCGH in the metropolitan area. BSWA directly manages the Bunbury and Joondalup screening and assessment clinics. Assessment is provided in dedicated premises where only women with a screen-detected abnormality are assessed on dedicated BSWA days. The clinics adhere to National Accreditation Standards (NAS) with regard to dedicated clinic staff, including Radiologists, Breast Physicians, Surgeons, Clinical Nurse Counsellors, Pathologists, Cytotechnologists, MITs, Mammography Assistants and a Receptionist. All staff are employed by each hospital in accordance with the Public Sector Standards Commission guidelines and hospital policies and standing orders.

All clinical staff working at assessment centres are required to have appropriate specialist qualifications and to have had training and experience in the assessment and treatment of breast cancer lesions. Attendance at on-going training and professional development courses is also required.

**The Medical Director** ensures the state-wide operation and performance of BSWA complies with the objectives, policies, procedures, accreditation requirements and standards of BSA. The Medical Director is the lead clinician for the service. The Medical Director oversees the day to day client clinical

incidents, the high-level medical enquiries, and the complex screening and assessment outcomes. The Medical Director is the lead clinician responsible for overseeing the quality of reading to ensure a high level of cancer detection and manages the interval cancer client notification, and medico-legal enquiries.

The role is directly responsible for the management and coordination of radiology services and regular performance feedback to Radiologists, Pathologists, Surgeons and Breast Physicians, in accordance with BSWA's Quality Assurance (QA) program.

The Medical Director, in collaboration with the Operations Manager, ensures there is a regular review of quality and cost effectiveness of service provision in relation to strategic and operational plans, and coordinates adjustments as necessary through participation in the relevant committees.

**The Operations Manager**, established in January 2022, is responsible for managing the day to day corporate operations, corporate governance of the BSWA service, and management of human, financial, information and material resources consistent with the organisations policy and guidelines, vision and mission. The role also supports the Medical Director in their clinical governance of BSWA.

The position partners with the Breast service coordinators in the development and delivery of strategies which support continuous improvement in practices and processes in the delivery of BSWA services.

In collaboration with the Medical Director the position facilitates the development and implementation of strategic and operational plans to ensure the provision of personalised, safe, effective and timely care for all women who access the service. The position reports directly to the Nurse Co-Director, Women and Newborn Health Service.

**The Chief Medical Imaging Technologist (CMIT)** is responsible for overseeing all issues relating to breast imaging, including recruitment, training and ongoing professional development for SS staff. In consultation with the Medical Director, the Chief MIT is responsible for all technical aspects of breast imaging QA within the screening arm of BSWA, including the screening and assessment clinics in Bunbury and Joondalup. The Clinical Liaison Officer, who assists with the coordination of breast assessment appointments in the clinical nurse's office, also reports to the Chief MIT. The performance of MITs/Mammography Technologist and quality issues relating to breast imaging at RPH, SCGH and FSH has been delegated to the Senior MITs in charge of the respective clinics. The Chief MIT is responsible for screening service delivery and establishing and maintaining a program for the monitoring and evaluation of client feedback about the acceptability and appropriateness of the screening and assessment service provided.

BSWA also has other key areas and positions represented in the Organisational Chart that are vital in delivering services that include but are not limited to the Screening Services team, Data & Information Services team, Health Promotions, Finance and Business Services, Support Services and Administrative support.

### SERVICE PRIORITIES AND OPERATIONAL PLANNING

Across the course of the 2022 calendar year BSWA has experienced a cross section of challenges, issues, achievements, service improvements and operational planning. Information is provided below;

### CHALLENGES AND ISSUES

### COVID CHALLENGE

BSWA clinics closed for a month in 2020, from 30<sup>th</sup> of March to 26<sup>th</sup> of April at the start of the COVID epidemic. 13,500 examinations were estimated to be lost for the 2020 calendar year. In the 2021-2022 financial year the service received \$1.5 million of catch up funding which allowed the service to screen 132,106 women. The funding was withdrawn for the 2022 -2023 financial year. BSWA had a significant downturn in screening in July/August 2022 due to staff and client illness with the spread of COVID in the population. BSWA has made submissions for additional funding in the 2023 – 2021 year to return the service to pre-COVID participation rates.

### FALLING PARTICIPATION

Despite developing a Strategic Operational Plan 2030, mapping the need for service expansion to meet the ABS population growth projections over the next decade, and the development of business cases to open the Butler and Melville Clinics to meet growing metropolitan area population growth, the Service has not been successful in securing Departmental support for these initiatives.

### POOR TIMELINESS TO ASSESSMENT

BSWA continues to have poor performance in the essential National Accreditation Standard 4.2.1 - time from screening to assessment. In 2021, due to burgeoning wait times for assessment, BSWA was able to liaise with a private provider who was offering a new assessment service at Hollywood Hospital Breast Clinic. BSWA was able to advise a number of women with very low acuity lesions of the opportunity to opt out of the BSWA Service and attend the bulk-billing private Breast Assessment Service.

In 2022 BSWA updated its website so that the home page shows the daily time to assessment for women screened today to be assessed should they have a screen detected abnormality, to allow women to make an informed decision about the screening pathway.

### WA CANCER REGISTRY DELAYS ON CODING

Delays in coding of up to 18 months have been encountered that means BSWA cannot report interval cancer rate and program sensitivity in a timely fashion. BSWA is unsure if registry resourcing will be improved going forward to address the issues

### ONGOING CHALLENGES WITH STAFFING RURAL MOBILES

Ongoing and persistent challenges with recruiting and retaining radiographer and reception staff on the mobile vans that visit regional and remote centres has been experienced. This is an ongoing issue as BSWA has the largest state in Australia to cover, with the mobiles traveling as far south as Esperance, north -west to Kununurra and east to Laverton. The mobiles are on the road for extensive periods of time, requiring a commitment from radiographer and reception staff that at times proves difficult to attract.

### MARDALUP CLINIC RECOVERY

The East Perth Mardalup BSWA Clinic was flooded on Boxing day 2021, when a pipe burst in the building resulting in catastrophic damage to the ground floor, with all furnishings and equipment soaked when water levels rose to 800mm (80cm) deep. BSWA staff were commended for the quick turnaround in responding once alerted to the damage, with recovery efforts commencing immediately. Unfortunately, due to the nature and significance of the damage the clinic was out of operation for close to 10 months as processes that involved insurance claims, a new tender process to rebuild the clinic, engagement with service providers and construction services were undertaken. Fortunately, during this time screening numbers were not diminished as women were rebooked in other clinics and staff were redeployed to other BSWA clinic sites. The clinic was officially re-opened in late September 2022 with Aunty Marie Taylor (a respected Aboriginal Noongar Elder woman) delivering a smoking ceremony as part of the re-opening.

### PACS (PICTURE ARCHIVING COMMUNICATION SYSTEM)

BSWA has a current contract with Philips Carestream for their PACS system that houses all the imaging for mammography procedures captured at our clinics. The current contract with Philips is set to expire in March 2023 but BSWA is navigating through the process of extending the contract beyond term for multiple years (3 x 1-year extension options). In tandem with the extension BSWA is also reviewing long term future PACS requirements and have been engaging with the Enterprise Medical Imaging Platform (EMIP) team based at Health Support Services (HSS) to determine if there is benefit in BSWA moving to the PACS supplier that has the contract for the larger WA Health System. There are some logical benefits in procuring the new PACS as there is greater synergy and compatibility on being on the same platform as the WA Health System, resulting in BSWA having to wait some time for those sites to go live, before being considered for the opportunity. More work is continuing in this area of the coming 1-2 years.

### BUNBURY LEASE AGREEMENT

BSWA has a clinic that has been located at St John of God (SJOG) Bunbury for the last 10 years, providing screening and assessment services to women living in the south west region of Western Australia. Currently a 2-year lease extension has been negotiated with SJOG but BSWA is receiving no assurances that the lease will be extended after that time, which has an end date of March 2025. This is due to SJOG undertaking a long-term redevelopment project. BSWA are engaging with the North Metropolitan Health Service (NMHS) Fleet and Leasing team, who are advocating on BSWA's behalf to acquire some certainty on BSWA's occupancy moving forward. When BSWA are evicted from the location there would be cost implications as the need to relocate, lease and fit out new premises would be significant. Losing a foothold in the Bunbury region would have detrimental clinical impacts on clients of the southwest community, for both screening participation and timeliness to assessment.

### STAFFING RESOURCES

Over the last 8 years BSWA have established clinics in Cockburn, Mandurah, Albany, East Perth and Joondalup. Unfortunately, in that time there has not been comparative growth in personnel relating to the Senior Radiographer Clinical Supervisory Structure, The Nursing area (which lack a suitably resourced Supervisory Nurse position), Project Management, and Information Technology (IT) services. BSWA has also experienced challenges staffing the mobile units, with the Chief Medical Imaging Technologist (CMIT) regularly exploring radiographer recruitment strategies and acquisition of personnel via locums to ensure continuity of service.

### ACHIEVEMENTS

### OPENING OF JOONDALUP SCREENING AND ASSESSMENT CLINIC

In May 2022 BSWA opened the Joondalup Screening and Assessment clinic that is in the northern metropolitan area. The clinic was formally opened by the Minister for Health – the Honourable Amber Jade Sanderson, with members of the North Metropolitan Health Service Board in attendance, along with other VIP's and invited dignitaries. The new clinic provides 11,000 screening episodes



per annum for women in the Northern Corridor. The new clinic also provides work up of screen detected abnormalities, with advanced mammographic and ultrasound diagnostic services, and image guided biopsy. The clinic was established after years of planning that involved the development and approval of business cases, scoping of locations, a robust procurement and tender process, project management and intensive engagement with contractors. The clinic is in a highly visible area on Joondalup Drive in a busy commercial and shopping district and can also be seen from the Mitchell Freeway, easily identifiable with the bright pink façade.

### TENDER FOR NEW MOBILE TRUCK

The Chief MIT, Project Officer and Operations Manager have been coordinating the initiative for acquisition of a new mobile to add to BSWA's established fleet of four mobiles that are currently operational.

The new truck will be named 'Leschenaultia' and is consistent with the other mobiles that are aptly named after Western Australia flowering plants, Desert Rose, Desert Pea, Boronia and Grevillia. The planning process has been arduous with significant



engagement with experts in Automotive, Electrical and the Hydraulic Engineering field. The level of robust engagement has ensured confidence for BSWA that the specifications requested in the Tender document have been reviewed extensively. The Tender commenced in late 2022 (December) with the intention for the new mobile to be operational by the third quarter of 2023. The addition of the new vehicle will allow BSWA's program to expand the mobile visit schedule in inner and outer metropolitan Perth as well as extend regular visits in rural towns experiencing increasing population growth.

### MOBILE UNIT EQUIPMENT UPGRADE

In the last 12-18 months Tomosynthesis has been installed on our four mobiles; Desert Pea, Desert Rose, Boronia and Grevillea. Tomosynthesis produces a more detailed image of the breast than a standard 2D Mammogram, and with the installation on the mobiles, enables women in the rural areas to receive the same level of imaging during step down assessment.



BSWA has established a mechanism where clients can opt in to receive their results via email correspondence. Notification of a clear result is sent to their nominated email address, with advice highlighting 'their screening mammogram showed no evidence of breast cancer'. Nurses provide direct follow up with any client that has a screen detected abnormality encouraging them to have follow up assessment.



### ELECTRONIC RADIOLOGY REPORT GENERATION LAUNCHED IN MID 2022

This electronic radiology report for both abnormal screen-reading outcome radiology reports and abnormal assessment radiology reports, has been an excellent initiative, reducing report turnaround times and improving the accuracy of radiology reports.

### FUTURE PLANNING

BSWA has been active in highlighting the challenges and obstacles faced with screening and assessment services for women in Western Australia. A Ten-Year Future Service Development for Mammography Screening Report produced in 2021, in collaboration with the North Metropolitan Health Service (NMHS) Clinical Planning Division, highlights key areas of need that need to be explored for BSWA to meet demand for screening services. In the 2018-19 financial year, almost 125,000 women participated in mammography screening in Western Australia (WA), and demand is expected to grow by one third over the next decade. As part of the modelling and forecasting undertaken it was determined that this translated into an estimated annual capacity shortfall of almost 40,000 screens and 1,400 assessments in future years.

BSWA has seen the greatest demand for services in Perth Central Business District (CBD), outer metropolitan areas, regional centres and rural coastal communities. The mobile clinic units in the outer-metropolitan areas operate at capacity and cannot accommodate all additional women requesting an appointment. Areas showing greatest unmet demand include the suburbs of Armadale and Butler and other outer metropolitan developing communities. Regional centres with the greatest growth are Geraldton and Albany, and fastest growing mobile unit screening activity and demand is in coastal rural areas including Margaret River, the Busselton region and Denmark.

To keep up with population growth, an increase in capacity is required. To maintain the long-term participation rate of 56%, by 2031 BSWA would need to increase the number of women screened by 28% to maintain the same performance level. This represents an average annual growth of 2.08% over the period from 2019 to 2031.

However, if the participation rates are increased to 58% or 60%, by 2031 BSWA would need to increase the number of women screened by 31% and 36%, respectively. This represents an

average annual growth of 2.51% and 2.58% over the period from 2019 to 2031 for 58% and 60% participation rates respectively.

BSWA are currently looking to expand services and have pending submissions, that are illustrated in the table below to increase the capacity for assessment services in the Northern Suburbs; a mid-year review budget submission was developed requesting 2 additional assessment days at the Joondalup Clinic which will increase weekly assessment days to 3 per week. BSWA are hopeful that the outcome will be positive with confirmation to be received by May 2023. This will strongly assist BSWA in improving timeliness from screening to assessment for women with screen detected abnormalities. In addition, this submission also includes a request of recurrent funding to the value of \$1.5million that was originally provided as a once off COVID-19 payment. This payment will assist BSWA to employ Radiographers and increase screening numbers by 10,000 per annum.

	2021-22 (complete)	2022-23 (current year)	2023-24	2024-25	2025-2030
PROPOSED STRATEGIES	Covid Recovery           NEW Joondalup Clinic opened           Metro Screen Clinic relocated (Wanneroo to Joondalup)           Expand Metro Screening (Mirrabooka & Padbury)	Accreditation (2022 data) Expand Metro Mobile Screening – New Truck, inclusive of FTE Proposed expansion for Joondalup Assessment (2 extra days)	Expansion PROPOSED NEW Metro Screen Clinic (Melville) Proposal to Increase corporate staff resources to reconcile with Growth in services and benchmarked against National equivalents	of Services           PROPOSED           NEW Metro           Screen Clinic           (Butler)   PACS Procurement	Accreditation (2026 data) NEW – Madeley/ Landsdale Ellenbrook, Canning Vale NEW – Assessment South East (Maddington)

BSWA have put forward a business case for the expansion of services, earmarking the need for clinics in both the Northern Suburbs (Butler) and the Eastern Suburbs (Melville).

As referenced in the 'Future Planning' section, from modelling and projections it has been clearly established that there is a need to increase screening opportunities for women in the Northern Suburbs corridors, and the Eastern Suburbs of Perth. BSWA have put forward multiple submissions requesting both capital and recurrent funding, to address these shortfalls, with the most recent submission being directed through to the WA Department of Health. At time of writing BSWA is still awaiting an outcome.

The BSWA Project Program Overview group meet monthly to discuss key projects that are being delivered. This meeting is vital in providing project updates, sharing information and collaborating resources that facilitate and assist in delivering outcomes. The BSWA Project Officer organises, facilitates and drives the meeting with key personnel attending that comprises of the IT Manager, Data and Information Services Manager, Coordinator Support Services, Health Promotion Coordinator, Chief MIT, Supervising MIT, nominated Consultant Radiologist and Operations Manager. Each project is given a priority highlighting the level of importance and urgency attached to it, and the projects are reviewed with transparency in the meetings, ensuring a level of governance is in place and progress and

accountability is maintained. A live spreadsheet is maintained and updated at each meeting and circulated to the membership that provides clear communication, direction and action points. The



projects are originally established via BSWA Strategic planning days that are held annually. BSWA did not hold one in the 2022 calendar year due to the challenges presented by COVID, however the meeting for this year is scheduled for May 22, 2023. This forum includes representation from key personnel across BSWA's organisation and BSWA engage with an external facilitator to drive the meeting. It is an opportunity for staff to engage, collaborate and brainstorm ideas to develop future strategies to enhance services delivered by the organisation.

### DATA MANAGEMENT - A FOCUS ON QUALITY

BSWA is committed to quality data collection and reporting including high standards of clinical and data governance.

The Data Management team performs the following essential tasks:

- Co-ordination of data management of screen detected abnormalities, reviewing all screening participant care that is according to established clinical protocols and ensuring associated clinical records are accurate and complete.
- Ensure all Data Management practices and coding standards meet the BreastScreen Australia Data Dictionary requirements and the National Accreditation Standards. Performs audits of data to ensure accuracy, quality and safety.
- Under the direction of the Medical Director ensures all follow-up care is within the standards of



the BreastScreen Clinical protocols and provides assistance with clinical governance.

• Prepares interval cancers for reporting and the quality review process, through multifactor processes of identification (record linkage with WA Cancer Registry, client report, database extraction of rescreeners, surgical report).

• Co-ordinates information exchange with multi-disciplinary health care practitioners who provide clinical follow-up care both internal and external to the Program.

• Provide assistance to BSWA staff in regard to assessment data queries, diagnoses, rescreening intervals, cancer histories, cancer treatment, procedures and data policy requirements.

• Provide assistance to BSWA staff in regard to assessment data released to external health care providers, and ensures information released complies with Health Department policy and BreastScreen guidelines. Ensures information provided is accurate and appropriate for ongoing clinical care.

The Data Manager coordinates quality improvement initiatives and/or projects to address adherence to National Accreditation Standards. Our Service identifies and documents issues, implements improvement initiatives and reports on project outcomes. The Data Manager co-ordinates the State Quality Committee, reporting the Annual Data report, QIP, response to unmet NAS and other quality measures. In addition, the Data Manager represents BSWA on the WNHS Clinical Governance Committee, reviewing service quality on a quarterly basis including rates of clinical incidents. Quality in Service provision is examined by a number of external and independent committees. This commitment to continual cycles of quality improvement drives excellence in population screening.

Data Management is responsible for BSWA policy, ensuring that it is subject to compliance audits and a regular policy review schedule to be in line with BreastScreen Australia protocols, WA Department of Health policies and current practice. Policy compliance reviews allows BSWA to identify areas for staff training, resourcing and/or capacity improvement. Each year 7- 8 policy chapters are reviewed for compliance ensuring policy robustness and a strong policy framework.

Data Management co-ordinates the BSWA research framework and ensures research data provisions are in line with BSWA research goals and compliant with ethical requirements. Recently 5 papers were published in key areas of AI, risk stratified screening and open disclosure.

The Data Manager reports to the SQC, NQMC, AIHW, WA Department of Health (annual report), Office of the Auditor General, ROGS, DoH Linkage Branch, WNHS Clinical Governance Committee and other agencies as required. BSWA performance is reviewed by several external and independent committees

and agencies. Key areas of review include population participation, participation in vulnerable groups, cancer detection, incidents and complaints, timeliness and assessment standards.

The Data Manager co-ordinates accreditation and drives the accreditation ready process. This process assists managers to understand accreditation protocols and collect regular evidence of compliance while actively managing risks identified. The accreditation ready process links the Protocol Management Checklist to policy, evidence and key documents. Accreditation ready has provided benefits in the current accreditation cycle, particularly in the virtual environment.

### INNOVATION AND IT

Breastscreen WA's IT department has been committed to implementing innovative solutions to enhance the screening program's efficiency and effectiveness. Over the past 12 months, the department has introduced several solutions aimed at improving patient outcomes and promoting equity and access. These solutions include report wizards, disability bookings, and the evaluation of AI in mammography.

The report wizards introduced by the IT department aid the creation of radiology and physician reports. With this solution, radiologists and physicians can generate reports faster and more accurately, which enhances the screening program's efficiency. The report wizards have also improved the accuracy of reports, which is critical for detecting and diagnosing breast cancer early. Additionally, the solution has improved the patient experience, as they can receive their reports faster and with more accuracy.

The IT department's introduction of the disability booking solution has been instrumental in promoting equity and access to the screening program. Clients with wheelchair disabilities can now easily book their appointments so that they can receive necessary support during their screening process. The solution has also improved the efficiency of the booking process, as clients with disabilities do not have to go through a lengthy process to book their appointments. The IT department's commitment to promoting equity and access is evident in this solution, which aligns with the program's goal of providing equal access to all clients.

The IT department's rollout of iPads into remote clinics has been another innovation aimed at improving the client experience. The iPads have improved access to translators, which is critical for clients who do not speak English. Clients can now communicate with the clinic staff and receive the necessary information about their screening process. This solution has improved the program's efficiency, as clients can now receive the necessary information without the need for an interpreter.

The creation of a new system to track interesting cases is now ready for deployment. The system allows the program to identify and track interesting cases as identified by radiologists, which can provide valuable insights into the program's operations. The system is also capable of tracking the reviews of interval cancers to ensure that all of our team are up to date with their reviews. The system also promotes a culture of learning within the program, as staff can learn from interesting cases and improve their skills and knowledge and will soon incorporate the mammographic training sets for ease of access.

Earlier in the year BSWA partnered with Ento to implement a rostering system to enable our clinic staff to self-manage shift changes and have a central diary that can be accessed via the web regardless of location. The IT team worked closely with the Screening Services team to implement and rollout the system which has proven to be very successful. During this rollout it was brought to our attention the difficulties in rescheduling staff and cancelling appointments that occurs early in the morning when staff became unavailable. Using this information IT developed some software to streamline the

cancellation process reducing the time taken each morning to process these cancellations by approximately 1 hour.

Through a process of constant environmental scanning, and root cause analysis of emerging issues the IT department seeks to introduce new innovations that streamline and enhance the service provided by BSWA. Our innovations have optimised the tools used by the BSWA team to better service a growing population with existing resourcing.

### HEALTH PROMOTION

BreastScreen WA is committed to providing access to breast screening for all women but has an emphasis on vulnerable populations particularly women in rural and remote areas, cultural and linguistically diverse women, Aboriginal women and women from low socio-economic areas.

BSWA's Health Promotion Team consists of two Senior Program Officers, one with a focus on reducing barriers and increasing participation for diverse groups, including multicultural groups, the LGBTQIA+ identifying community, and people with disabilities. The other has a focus on media, communications, graphics and design. The team also has a Senior Aboriginal Health Program Officer, who focusses on engaging specifically with the Aboriginal community in WA, as well as an Assistant Program Officer who engages rural and remote contacts to promote screening, and aids in the publication and distribution of resources. The Coordinator for Health Promotion and Recruitment oversees the team and leads health promotion interventions and strategies for recruiting participants to the screening Program. The General Practice Liaison Officer works closely with the Health Promotion team to develop promotional strategies for primary care.

Throughout 2022, the Health Promotion team was involved in an array of community engagement and health professional education activities, despite still being challenged by COVID restrictions and lessened community events. Events included educational sessions to other health professionals, presentations to community groups, "Lunch 'n' Learn" workplace sessions, displays at conferences and expos, and displays at community locations. Major events for the year include the annual Pink Ribbon Breakfast hosted by BSWA, attending EveryWoman Expo, Mother's Day Classic fun run, PrideFest Fairday, Women's Health Week Events, International Women's Day events, and Breast Cancer Awareness Month events.

In April this year, the Senior Aboriginal Health Program Officer travelled to Bidyadanga Community. The aim of this trip was to engage with the Aboriginal women from the community alongside local Aboriginal Health Workers to build a healthy trusting relationship with community members whilst providing information to the ladies in the community regarding have their mammogram when the BSWA mobile clinic arrives in Bidyadanga. The SAHPO also provided training sessions with the Aboriginal Health Workers on site, to upskill their knowledge and understanding of how to use the BSWA Breast Cancer Awareness Flipchart resource.

### IF PROJECT

The participation rate for Aboriginal women in the BSWA program remains consistently low, it is currently <30% for Aboriginal women compared to >50% for non-Aboriginal women. While the incidence of breast cancer is the same for Aboriginal women as it is for non-Aboriginal women, Aboriginal women generally have poorer outcomes when diagnosed with breast cancer than non-Aboriginal women.

In October 2020 BSWA were successful in receiving Innovative Futures (IF) funding from the North Metropolitan Health Service to expand and improve resources for Aboriginal women. The following resources are being adapted and developed to address barriers to training and education and improve participation in breast cancer screening for Aboriginal women.

The first resource is an adaptation of BSWA's existing Aboriginal Flip Chart training into an online training and education package. The flipchart is being updated and is used in the community to highlight the importance of regular breast screening. The availability of an online training option reduces barriers for Aboriginal health workers and health professionals who work with Aboriginal women to participate in the training, particularly those located in rural and remote WA.

The second resource is an audio-visual resource to assist Aboriginal women who may have a language/literacy barrier to make an informed decision before they consent to having a screening mammogram. For many Aboriginal women living in regional and remote WA, English is their second or third language. BSWA does not currently have any information available in Aboriginal languages. The Pilbara was identified as a priority region with screening participation as low as 20% in some areas. When the English version of this resource is finalised, it will be translated into Aboriginal languages. The Aboriginal language translated will be Martu, a common language spoken in Jigalong, Parnngurr, Punmu, Newman and Nullagine communities in addition to Kriol which is spoken extensively in the region.





Government of Western Australia North Metropolitan Health Service

## **Breast Cancer Screening**

What you need to know before having a mammogram



A FREE RING: 13 20 50

First frame of IF Martu video





Artwork developed for IF project by Aboriginal artist Esther McDowell

### NEW WEBSITE DESIGN AND LAUNCH

The BSWA website was due for an upgrade after Department of Health implemented a new website template using SiteCore infrastructure to ensure consistency across all Department of Health services. In July 2022, the new-look website was successfully launched, with the addition of the following additions and upgrades:

- New "Find your town" feature with map to improve ease of information regarding the location of the mobile screening units' dates and addresses,
- New LGBTQIA plus page outlining policy and advice for transgender men and women, as well as information around community engagement and the aforementioned "Screening Saves Lives" campaign, including downloadable resources and downloadable Stakeholder Communications Toolkit,
- *Waiting times* page to provide screening appointment and assessment appointment wait times easily accessible on front page,



BreastScreen WA Website homepage

• New aesthetically pleasing look with more images, ease-of-access, improved navigation, AAA accessibility rating, etc.

The new website template is much easier to use in the back-end, so content can be added and updated in-house and more frequently. BSWA has control of the content and staff have been trained to manage the website content, reducing reliance on external Departments for support.



BreastScreen WA "Find your town" map and search feature

Feedback from BSWA's Consumer Reference Group regarding ease of use, content, and navigation has been consistently positive. The new look website provides an up-to-date avenue for WA women to access current information.

### RESOURCES AVAILABLE IN LANGUAGE

The following resources are available in 32 different languages on the BSWA website, to improve the accessibility of breast screening information to Culturally and Linguistically Diverse Women.

- Breast screening information fact sheet
- Screening mammography for women with a family history of breast cancer fact sheet
- Notes on screening mammography fact sheet
- After your screening mammogram, what next? Fact sheet
- Further tests, what does this mean? Fact sheet
- After 75...should I stop or should I continue having screening mammograms? Fact sheet
- Poster promoting screening



Resources are displayed in an easy-to-navigate layout on the BSWA website

### SCREENING SAVES LIVES CAMPAIGN

The Screening Saves Lives campaign, developed in 2021, is a collaboration between the National Bowel Cancer Screening Program, BreastScreen WA and the WA Cervical Cancer Prevention Program, with a focus on the LGBTQIA+ community. The campaign was created in response to research indicating that members of the LGBTQIA+ community have lower cancer screening rates than the general population due to hesitancy in seeking out medical care for fear of discrimination.

The campaign aims to increase awareness and participation of the Australian national screening programs within the LGBTQIA+ community, with the ultimate goal of increasing screening rates and saving lives. Members from the WA's LGBTQIA+ community volunteered their time, talent and insight to create a suite of resources that are relevant and authentic to the target group. These include a flyer, posters, and social media tiles. A "Stakeholder Communications Toolkit" was developed, containing suggestions for stakeholders, community members,



DL Screening Saves Lives Flyer (front and back)



Breast screening saves lives



Pride FairDay 2022 display set up

other health professionals and relevant organisations about how to use these resources across various platforms to increase awareness of and participation in these lifesaving screening programs.



Breast screening saves lives

The Screening Saves Lives flyer (pictured) was developed to showcase the Campaign's Heroes and layout Program eligibility in a simplified format. This resource was used significantly at the Perth Pride Fairday, which BSWA Health promotion staff, alongside colleagues from National Bowel Cancer Screening Program and the WA Cervical Cancer Prevention Program, attended to engage with the LGBTQIA+ community face-to-face. The flyer, as well as other merchandise items, were distributed while community questions were answered and the screening programs were promoted.



**EVERYWOMAN EXPO** 

BSWA mobile screening truck, Boronia, on the floor at EveryWoman Expo

BSWA took the mobile screening truck, Boronia, to the EveryWoman Expo for the first time in 2021. The presence of the truck coincided with the Health Promotion team's display booth, which the team has been attending since 2016.

The display gave patrons the ability to ask questions, make appointments at any of the permanent or mobile clinics across WA, and take resources and merchandise. The truck operated as a screening clinic over the 3 day event, from the daily opening to closing time.

BSWA's Coordinator for Health Promotion, brought attention to the service with a daily presentation on the Expo stage focussing on breast health, breast cancer, and encouraging eligible women to have a breast screen. This highly successful event led to the truck going to the Expo yet again in 2022, with more staff and preparedness to screen more women than the year before.

At the 2021 EWE, 305 bookings were made across all clinics, 136 women were screened on-site, 50 women updated their details, and over 750 people were spoken to.

At the 2022 EWE, over 300 bookings were made across all clinics, 184 women were screened on-site (of those 60% were first-time participants), and over 800 people were spoken to. Overall, the EveryWoman Expo is not only a great avenue for community engagement and promotion of screening, but now, with the ability to screen on-site, is a place for opportunistic action and capturing the target audience promptly. Once women attend, they will be invited in another 2 years to screen again. BSWA intends to attend the expo regularly with the screening truck, if possible.



### NEW JOONDALUP CLINIC LAUNCH



Minister for Health Amber-Jade Sanderson delivering the official opening speech

BSWA was granted funding to establish a purpose-built screening and assessment centre in Joondalup in 2020-2021. As the new clinic has a facility for the assessment of screen-detected abnormalities, it saves clients from the North Metropolitan areas the need to travel to the Perth CBD or further for assessment.

Data feedback from

EveryWoman Expo 2022

The clinic was built and designed with the consumer in mind, to create a modern, yet inviting facility to help ease the anxiety of women attending for screening and/or assessment.

Clinical and waiting rooms are decorated with images of various locations covering the walls as well as a full wall image of the world map. The assessment waiting room has craft activities and books for women to pass the time while waiting to be seen. The clinic was officially launched by the Minister for Health Amber-Jade Sanderson, and Noongar Elder Aunty Marie Taylor with a Welcome to Country and Smoking Ceremony.



Aunty Marie Taylor performing Welcome to Country and Smoking Ceremony



Inside the X-ray room

Inside assessment waiting room

### CONSUMER REFERENCE GROUP

The Consumer Reference Group consists of members of the community and representatives of agencies and organisations that have an interest in Breast Cancer. The Committee has representation from universities, Women's Health Services, organisations for seniors and organisations for survivors and women experiencing Breast Cancer. The Committee provide feedback, input and share information to enable BSWA to be informed by women using the service and organisations that will refer women to BSWA and work in collaboration with the Service.

Members provide feedback on many aspects of the operations as well as input into new projects and as new resources are developed. The Committee identify ways for the communication strategies to be improved.

Consumer Reference Group Members	Association
Hope Alexander	Consumer Representative
Jane Armstrong	LGBTQIA+ Representative
Clinical Associate Professor Lesley Cala	University of Western Australia
Clare Mullen	Health Consumer Council WA
Patricia Goh	Health and Disability Services
	Complaints Office
Jenny Hall	Dragon Boating WA and
	Consumer Representative

Consumer Reference Group Members	Association
Sue Hassett	Breast Cancer Network
Jodi Joyce	Can At 40. Do at 45. Consumer
	representative
Dr Linda Portsmouth	Curtin University
Lucinda Watts	Breast Cancer Care WA
Melitta Lawford	Women's Health and Family
	Services
Stephanie Miles	Country Women's Association
Paramjit Kaur	Ishar
Clare Pigliardo	Royal Perth Hospital
Sally Kingdon-Barbosa	Ishar
Associate Professor Jennifer Stone	University of Western Australia
Melissa Treby	Cancer Council WA

### ACHIEVEMENTS

As key stakeholders the CRG reviewed the new website to ensure that it meets the needs and expectations of consumers. They also provided valuable feedback to improve the usability of the website for consumers. The CRG provided input and support during COVID isolation and restrictions. As part of BSWA's consultative processes, they provide ongoing valuable advice on resource materials for women.



Consumer Reference Group members at November 2022 meeting from left to right: Linda Portsmouth, Angela Hellewell (chair), Jenny Hall, Melissa Treby, Hope Alexander, Jodi Joyce, A/Professor Lesley Cala, Sally Kingdon-Barbosa

### SUPPORTING GENERAL PRACTICE

General Practitioners (GPs) are the largest group of health professionals that refer women for screening mammograms, manage client's breast cancer risk, and assist with management of women with screen detected abnormalities. In order to engage meaningfully with this group, BSWA employs a practising general practitioner, as a GP Liaison Officer (GPLO). The current GPLO has multiple roles:

- Providing advice and assistance to GPs about breast disease;
- Organising educational activities on breast disease, including seminars to GPs and medical students and informative articles in local medical media;
- Supporting BSWA in GP engagement strategies;
- Advising on and assisting with preparation of resource materials for GPs and women;
- Supporting BSWA's Medical Director in respect to individual client and GP enquires;
- Assisting the Health Promotion Team with community engagement including radio interviews and development of educational resources; and
- Supporting the local breast physicians and the assessment centres with professional development.

### BREASTSCREEN WA GP ADVISORY GROUP

For over 20 years, the members of BSWA's GP Advisory Group have provided invaluable primary care representation by:

- Providing advice and assistance to promote the BSWA Program to GPs;
- Encouraging GPs to refer eligible women to BSWA;
- Advising on strategies for working with GPs;
- Advising on and assisting with preparation of resource materials for GPs; and
- Advising on how to respond to difficult or contentious issues raised by GPs.

The following is a list of GPs who have been on the GP Advisory Group in the past decade:

Current Members	Past members
Dr Yien Chin	Dr Crystal Cree
Dr Angela Cooney	Dr Judy Galloway
Dr Richelle Douglas	Dr Karen Moller
Dr Jacquie Garton-Smith	Dr Alison Stubbs
Dr Linda Kohler	Dr Vicki Westoby
Dr Sarah Paton	Dr Amanda Villis
Dr Pamela Thompson	
Dr Sarah Smith	

Recent achievements of the GP Advisory Group include participation with BSWA LBGTIQ+ engagement strategies; advice about client confidentiality in relation to GPs; advice about secure messaging and My Health Record; and contributing to BSWA educational materials for GPs caring for women with dense breasts.



Dr Angela Cooney



**Dr Eric Khong** 



Dr Jacquie Garton-Smith



Dr Richelle Douglas



Dr Linda Kohler



Dr Yien Peng Chin



Dr Pamela Thompson

**Dr Sarah Paton** 

Dr Sarah Smith

Members GP Advisory Group





### **GPs Think Pink for Breast Cancer!**

Well done and thank you from BreastScreen WA to all the general practices and health centres that participated in the 2019 Health Promotion in the Practice initiative in October, Breast Cancer Awareness month.

This was the 19<sup>th</sup> year that BreastScreen WA has organised this successful activity with general practices and health centres across WA. It is an opportunity for general practices to think pink for breast cancer, which now affects 1 in 7 women in Australia.







2<sup>nd</sup> place - Ocean Village Medical Centre, Wembley Downs



3<sup>rd</sup> place - Seville Drive Medical Centre

Well done to all practices that took part, to view more visit: www.breastscreen.health.wa.gov.au/Newsroom

Women may book online - www.breastscreen.health.wa.gov.au - or phone 13 20 50



Government of **Western Australia** North Metropolitan Health Service



Covid Alert: Do not postpone or delay screening mammograms



BreastScreen WA does not recommend that women delay or reschedule their breast cancer screening mammogram appointments.

There is no evidence that the COVID-19 disease or COVID-19 vaccination has any adverse effect on the breast tissue. Some recently published medical studies have reported a small incidence of mild lymph gland swelling in the axilla on the side of the inoculation for up to 6 weeks after the vaccination.

BreastScreen WA is asking your patient questions about the date, arm and brand of COVID-19 inoculation, so the consultant radiologist has this information when they interpret your patient's mammogram images.

# Women may book online www.breastscreen.health.wa.gov.au or phone 13 20 50





Government of Western Australia North Metropolitan Health Service



# Breastfeeding women and screening mammograms



As the average age of mothers in Australia increases, more women who are over 40 years and breastfeeding are contacting BreastScreen WA for a screening mammogram. Screening mammograms are significantly less effective in detecting breast cancers during breastfeeding due to increased breast density. Women who are breastfeeding are advised to postpone their screening mammogram until 3 months after cessation of lactation. This allows the breast tissue to return to pre-breastfeeding density.

If women have any breast symptoms of concern whilst breastfeeding, they are advised to see their GP without delay for a consultation, clinical examination, and appropriate diagnostic breast imaging.

Women may book online www.breastscreen.health.wa.gov.au or phone 13 20 50



Government of Western Australia North Metropolitan Health Service



BreastScreen WA is pro-active about the security of client data



BreastScreen WA adheres to rigorous data security measures to ensure that the personal information (electronic and hard-copy) provided by clients from screening and assessment clinic visits, are protected from unauthorised use, disclosure or loss.

- BreastScreen WA is part of the WA Health Network and security of the information is monitored and governed by the WA Department of Health.
- BreastScreen WA staff and other authorised people have a legal obligation to keep your patient's health information confidential.
   BreastScreen WA undergoes regular data audits to ensure the security and integrity of the client data stored.

For further information see https://www.breastscreen.health. wa.gov.au/About-Us/Your-information

Women may book online www.breastscreen.health.wa.gov.au or phone 13 20 50



### A FOCUS ON CUSTOMER SERVICE

BSWA strives to provide the best possible customer service to every client during each step of the screening and assessment process, from booking an appointment, through to the screening episode, the assessment process (if applicable) and the delivery of results. Customer service is key to maintaining community confidence in the Program and assists with improving rescreening rates and ongoing participation rates. BSWA is continuously looking for ways to improve the service and has introduced many new systems recently to enhance the customer experience, and the customer focus skills of staff.

### SATISFACTION OF FIRST ROUND SCREENERS

In March 2020 BSWA commenced a customer satisfaction survey which is emailed to every client following their initial screen. The survey requests feedback on matters pertaining to her visit, such as clinic facilities, service, efficiency, explanations and customer care provided, as well as satisfaction with the booking process. Participants are asked if they are aware of the importance of returning for a screening mammogram every 2 years and the likelihood that they will return when they are invited back. Over 15,000 responses have been received so far, with a regular monthly volume of over 500 responses.

Analysis of this survey shows:

- 96% of women were satisfied with the availability of suitable appointment times;
- 97% of women were satisfied with the friendliness and courtesy shown by the staff, the compassion and concern for the client's comfort shown by the radiographer, the explanation of the procedure and the opportunity to ask questions;
- 98% were satisfied with the professionalism and competency demonstrated by the staff and were aware of the importance of returning every two years for screening; and
- 97% of respondents agreed they were likely to reattend when invited.

There is the opportunity within the survey to leave free comments, and these are overwhelmingly positive which is a tribute to the dedicated clinic staff.

### IMPROVEMENT THROUGH PROFESSIONAL COMPLAINT HANDLING

Complaints can have a positive side as they present an opportunity to improve our service. It is important that complaints are handled well because this enhances the image of BSWA and increases the likelihood that the participant will rescreen when next due. Complaints may be received by the SCU, a screening unit or breast assessment centre and may be either verbal or written, most frequently via telephone or email. It is important that complaints are taken seriously, dealt with systematically and followed-up quickly and appropriately. An effective system for handling complaints is an important part of service provision.

All complaints are documented on a Feedback Report Form as received. The area manager, or another senior staff member, attempts to contact the complainant by telephone as soon as possible to apologise on behalf of the service, and to discuss the exact nature of the complaint. A conversation with the complainant usually deescalates the situation, the client feels she has been heard, and that her experience is being taken seriously. All complaints involving a BSWA employee are fed back to the staff member involved, and if warranted, used as a training opportunity to improve their customer service skills. A written letter acknowledging receipt of the complaint and outlining the steps taken to resolve the issue they have highlighted is mailed to the complainant following discussions with those involved to close the loop.

Complaints are an opportunity to review policy, procedures and practice. Complaints are used during cycles of policy review and service planning. BSWA's commitment to customer service and customer

care has led to a reduction in the number and severity of complaints over time. The clinic staff demonstrate professionalism, competency and care for our clients.



Janelle Koenig from radio station 94.5 attending for a mammogram



Breastscreen WA client making a booking

### CLINICALLY LED

Engaged clinical leadership is essential for a State-wide screening program to ensure all participants receive a standard of care that is consistent with best practice. It is important for WA women that BSWA maintains a multidisciplinary team of expertise in radiography, nursing, screen reading and diagnosis of breast cancer using multi-disciplinary teams of radiographers, nurses, breast physicians, pathologists, radiologists and breast surgeons.

Clinical leadership is essential for high standards in cancer detection and cancer diagnosis.

The program has a suite of clinical protocols that ensure all women with screen detected abnormalities have high quality standards of care. The clinical teams at BSWA are dedicated to following up all abnormal and equivocal screen detected findings to ensure all abnormal outcomes are appropriately acted upon. Women choosing to have their screen detected abnormality investigated outside the Program still benefit from clinical review and follow-up with their health care providers when necessary.

The program has robust client contact policies and processes for women who have incomplete screening, incomplete assessment and who elect not to follow medical advice.

BSWA has developed expertise in new modalities as they arise, encouraging clinical staff to maintain contemporary diagnostic skills. More recently assessment has incorporated new techniques including Contrast Enhanced Spectral Mammography (CESM) and Vacuum Assisted Excisional Biopsies. CESM provides information on the vascularity of the breast lesions and may detect some lesions not detectable by conventional imaging. Vacuum Assisted Excisional Biopsies are an alternative to diagnostic open biopsies for borderline lesions.



Breastscreen WA Medical Director Dr Elizabeth Wylie and GP Liaison Dr Eric Khong

Participating in research is pivotal in developing and expanding knowledge and practice with new diagnostic modalities. Currently BSWA is undertaking a research audit examining CESM's role in diagnosis of radial scars.

Breast physician lectures/workshops are regularly convened by the GP Liaison officer, highlighting new developments and trends in the diagnosis and treatment of breast cancer.

### PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR RADIOGRAPHERS

A comprehensive program of training and professional development for radiographers is organised and coordinated by the Supervising Medical Imaging Technologist (MIT) with the support of the Chief MIT and the Tutor MIT. Radiographers are encouraged to attend educational talks, webinars & conferences throughout the year and links are regularly forwarded to them via email.

All radiographers have completed or are working towards completing their Certificate of Mammographic Proficiency. This is an ASMIRT accredited course provided by BSWA. New staff are trained in clinical mammography and assessment. The academic component is a mainly self-directed course of study. In order to assist in this education process Saturday morning sessions were instigated to help mammographers with this academic component. These Saturday morning sessions (3 or 4 per year) include guest speakers on a wide range of topical subjects. Some recent speakers have included

Breast Physicians, Physiotherapists, Radiologists, Pathologists, Oncologists as well as Research scientists presenting cutting edge breast cancer research.

COVID-19 impacted face to face sessions and some of these meetings had to be cancelled. Lunch and learn presentations started in 2023 which provide the opportunity for staff to join via Teams for 30 min during their lunch break. The first case study presentation was well received and more of these short interesting presentations have been scheduled throughout the coming year. Staff are invited to research and provide a presentation to the group if they wish and this is being encouraged. Now that COVID-19 restrictions are abating a series of face to face Saturday sessions with medical guest speakers have been scheduled.

The screening services staff are brought together annually from around the state for an in-service training day. The in-service topics may include mandatory training, and always include guest speakers relevant to breast cancer screening. Recent guest speakers have presented on customer service, communicating effectively with masks, AI in breast imaging reading and current research on BSWA staff involvement on imaging larger bodied women.

### **RESEARCH FOCUS**

BSWA aims to be a leader in breast cancer screening research in Western Australia and contribute to the published medical literature the outcomes of mammographic screening in WA. To achieve this, BSWA works to 1) bring together skilled cancer researchers; 2) enable dynamic connections between community advocates, clinicians, policy makers, and researchers working on a range of different disciplines; 3) conduct high priority research that aim to improve breast cancer screening in WA and nationally; 4) facilitate collaborative breast cancer screening research with the goal of achieving national excellence; 5) ensure breast screening practises in WA is informed by research; 6) enable BSWA to develop capacity in new technologies and leading practice through pivotal research; and 7) develop research protocols that will secure funding from the funding bodies.

### PUBLICATIONS

Scientific publications are found in appendix 1.

### SOME RECENT RESEARCH



Dr Michael Marinovich, NBCF-funded researcher

### AI FOR BREAST SCREENING IN A POPULATION BASED COHORT

Internationally, there is growing interest in the use of Artificial Intelligence (AI) algorithms in breast cancer screening. AI is a field of data science that uses large amounts of data to "train" computer programs to perform complex tasks, such as identifying cancer in a mammogram. Studies have found that AI algorithms may be able to interpret mammograms with accuracy that is comparable to humans, suggesting a role for AI as a reader in screening programs. However, those studies have used methods that may overestimate the performance of AI, and their study populations were not representative of women who attend screening in "real life". To address this limitation, we undertook the first evaluation of AI in an Australian screening program (BSWA). Using a consecutive series of mammograms from 108,970 women screened between November 2015 and December 2016, we assessed the accuracy of an AI algorithm for detecting cancer (including interval cancer) and compared it to the accuracy of radiologists who originally interpreted the screens. We found that the AI had lower overall accuracy; the sensitivity for detecting cancer was comparable to radiologists, but specificity for AI was reduced. We also investigated how AI might impact recall and cancer detection rates when it is integrated in double-reading by replacing the second radiologist read. Using this strategy, both recall and cancer detection were slightly lower than those observed in practice. However, AI was able to detect interval cancers not found by radiologists (and were therefore not recalled in our study), suggesting that cancer detection could be improved if radiologists had access to the AI findings.

The results show that AI has promise as second reader in double-reading due to an associated reduction in screening workload and the potential for increased cancer detection. However, because our study was retrospective, we could not assess whether cancer detection will improve in settings where radiologists are unblinded to the AI. This requires prospective trials in which AI is integrated into the screening workflow, and screening metrics are compared with double-reading without AI.

Dr M. Luke Marinovich

Marinovich ML, Wylie E, Lotter W, Pearce A, Carter S, Lund H, Waddell A, Kim JG, Lee CI, Zackrisson S, Brennan M, Houssami N. (2022) Artificial intelligence (AI) to enhance breast cancer screening: protocol for population-based cohort study of cancer detection. BMJ Open, 12(1), e054005

Marinovich ML, Wylie E, Lotter W, Lund H, Waddell A, Madeley C, Pereira G, Houssami N. Artificial intelligence (AI) for breast cancer screening: BreastScreen population-based cohort study of cancer detection. PENDING REVIEW

### RISK STRATIFIED SCREENING



There is an ongoing discussion world-wide about risk-based population breast cancer screening. The idea is to screen higher-risk women more often or to use additional imaging method for them, whilst screening lower-risk women less often. The aim of this approach is to maximise the benefit of population breast cancer screening while possibly reducing potential harms. BreastScreen WA collaborated with researchers at the University of Sydney, NSW, to assess breast cancer screening outcomes based on the standard set of breast cancer risk factors that are usually gathered at the time women present for screening. We analysed outcomes of more than a million screening examinations over 10 years and published two peer-reviewed papers so far.

In our first publication in the "Medical Journal of Australia" in 2021, we showed that each risk factor (such as having family members who had breast cancer, having had breast biopsy showing certain benign changes, and hormone replacement therapy) made a small contribution to the chance of breast cancer diagnosed at screening, and to the chance of breast cancer diagnosis before the next screening visit (this is referred to as an "interval cancer"). Of note, we showed that having "dense breasts", which are breasts that have more fibrous and glandular tissue on mammography, remarkably increased the chance of having breast cancer diagnosed before the next screening. This finding will also inform research about how best to screen women with dense breasts for breast cancer which is a developing field.

The above work was followed by another publication in an international journal (the "Breast") where we reported the limitation in identifying a low-risk group of women who can possibly attend breast cancer screening less often based on standard breast cancer risk factors. We found that just over half

of the women who participated in screening had no known breast cancer risk factors that are usually collected. However, 4 in 10 breast cancers occurred in women with no risk factors, and the characteristics of their cancers were no more favourable than women with risk factors. Based on this study, women who have none of the standard breast cancer risk factors are not low-risk enough to attend screening less frequently. Clearly this is an area of evolving research and there might be other risk factors that come into play in future.

The BSWA and University of Sydney team are continuing the successful collaboration to explore screening outcomes in this large cohort study.

### Dr Naomi Noguchi

### RADIAL SCAR APPEARANCES ON CONTRAST ENHANCED MAMMOGRAPHY



Radial scars are abnormalities seen on mammograms which are usually excised in case they contain a malignant component. This audit was undertaken to examine management options using contrast enhanced mammography (CEM) during breast assessment. A retrospective audit was undertaken to review the appearances of

radial scars on contrast enhanced mammography (CEM) and investigate how the use of CEM might aid management. Radial scars are benign fibrous breast lesions of unknown cause which can mimic cancer on imaging. The management of radial scars is challenging due to associated upgrade to malignancy at excision. CEM combines digital mammography with the administration of intravenous contrast, with enhancement demonstrated in biologically

active breast lesions. This is similar to MRI but with the advantages of lower cost, better availability and fewer contra-indications.

Imaging of 55 patients with a biopsy diagnosis of radial scar since the introduction of CEM into local practice was reviewed. 9 Patients underwent CEM as part of their diagnostic work-up and appearances of radial scars on CEM included no, low, moderate and high spiculate and nodular enhancement. CEM is reported to have an overall excellent negative predictive value for malignancy. Non-enhancement of radial scars on CEM could play an important role in triaging these lesions to active surveillance rather than excision.

### Dr Wilmi Pienaar

### BREAST ARTERIAL CALCIFICATION ON MAMMOGRAPHY AND IDENTIFICATION OF HEART DISEASE



Cardiovascular disease (CVD) remains the leading cause of death and disability in the world. Preventative strategies can be effective if we can identify individuals who are at high risk of developing CVD. Clinicians currently use risk prediction algorithms that are imperfect and often underestimates the risk of CVD in women. A screening tool to help us better identify women at high risk of CVD is required.

Breast arterial calcification (BAC) is a common finding on screening mammography that is not routinely reported (as it is an incidental finding and not associated with breast cancer risk). There is however, increasing evidence from predominantly retrospective studies to support that BAC is

associated with cardiovascular risk factors and CVD. Therefore, there is potential to use an already established mammography screening program to additionally screen for CVD at a minimal cost. To

facilitate this, we propose a prospective study of asymptomatic women with no prior history of CVD to investigate the association of BAC and CVD in a breast screening population. To identify coronary artery disease and the future risk of heart attacks and strokes, a coronary calcium score will be performed and compared between participants with and without BAC on mammography. We will also design and conduct a survey to assess participants' knowledge, awareness and patient perspective on BAC and its potential as a screening tool to inform future health promotion policy.

Dr Sing Ching Lee

### BREASTSCREEN PLUS



In collaboration with BreastScreen WA, A/Prof Stone from the University of Western Australia is currently leading a National Health and Medical Research Council (NHMRC) Targeted Call for Research project, BreastScreenPlus, investigating a novel intervention targeting obesity-related barriers to mammographic screening.

Background: Despite access to free mammographic screening, only around 55% of eligible women attend the BreastScreen programs. BreastScreen WA data shows that a critical point where women are lost from the screening program is following their first screening mammogram, when only around half return for their subsequent screening mammogram when next due. Women who have 2, 3 or more mammograms are much more likely to return (rescreen rates of 59% and 80% respectively) (1). Hence, there is an urgent need for evidence-based interventions to improve participation in breast screening AND retain women in the screening program.

Australia has one of the highest rates of obesity in the world, particularly in older women (2). More than one third of women aged 50-74 years are obese (body mass index (BMI)>30kg/m2) and rates are increasing (3). Participation in breast screening is particularly vital for women living with obesity since they are at increased risk of breast cancer (4), may develop more aggressive cancer types, and have poorer rates of breast cancer survival (5, 6).

It is well established that obese women are at high-risk of non-participation in breast screening (7-10). Qualitative and quantitative studies by our group demonstrate that body image disturbances, such as body shame and body avoidance, play a critical role in deterring women living with obesity from breast screening (11, 12) and that negative experiences at the time of mammography is a major deterrent to rescreening (11, 12). Radiographers may also experience practical and mechanical problems when screening women in larger bodies (11, 12).

Our team's data strongly suggests that improving the experience of mammography for women with obesity will significantly increase participation in screening (11, 12). We will target two specific areas to improve negative experiences for women with obesity attending BreastScreen: training for service delivery staff and providing better information for women. As the only Australian state that requests (voluntary) height and weight information from all women attending screening, BreastScreen WA is ideally positioned to evaluate an intervention addressing these barriers to screening participation. Aims: The overall aim of BreastScreenPlus is to co-design and evaluate a novel intervention to increase participation in breast screening by women living with obesity. We will:

- 1. Co-design an intervention with two components:
  - a. Promotional video for BreastScreen clients about what to expect at mammography that normalizes body shapes and sizes
  - Practical and empathy training for BreastScreen service delivery staff
     (radiographers and receptionists) to optimize their management of women living with obesity
- 2. Evaluate the efficacy of each component of the intervention by comparing rescreening rates and screening satisfaction between intervention groups, stratified by clinical categories of BMI.

Significance: This will be the first study internationally to co-design and evaluate an intervention to increase participation in breast screening by targeting women living with obesity. The intervention may also have benefit for the additional 30% of the screening population who are overweight. By directly addressing the barriers to screening participation in this high-risk group, this study has the potential to inform national policy changes which could directly improve breast cancer survival.

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## IMPROVING MAMMOGRAPHY SCREENING PARTICIPATION RATE AMONG ABORIGINAL WOMEN IN WESTERN AUSTRALIA

This research project will increase information about factors associated with low attendance among Aboriginal women, and testing new strategies to invite women to attend screening that could in future guide BreastScreen WA recruitment strategies targeted to Aboriginal women. Aboriginal women participation is a key National Accreditation Standard (NAS) for BreastScreen to improve access to screening and equity among vulnerable groups. Furthermore, improving participation among Aboriginal women has been recognised as a first priority in WA cancer plan 2020-2025 (19). To this end, the aims of this project are:

1. To identify factors associated with re-screening among Aboriginal women living in metropolitan areas.

2. To identify factors associated with ever-screening with BreastScreen WA among Aboriginal women.

3. To evaluate whether phone call reminders by an Aboriginal health care worker or SMS reminders with a link to a narrative video of Aboriginal women are associated with an increase in rates of booking a breast screening appointment and attending the clinic for screening among Aboriginal women who are overdue for their breast screening.

4. To evaluate whether the rates of booking and attendance vary by age group and other demographic factors among Aboriginal women who are overdue for their breast screening.

This study has been funded by the Royal Perth Hospital Imaging Research Fund. The funds have been used to develop a promotional video. The project is currently seeking ethics approval and recruitment of personnel.

### **APPENDIX 1: PUBLICATIONS**

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Figure 3 Each mobile screening unit was named after a flower native to WA. These art works were used to decorate each screening unit with its name and an image of the flower.

South West	Great	Goldfields-Esperance	Mid-west	Northwest (Kimberley)	Northwest (Pilbara)
	Southern/Wheatbelt				
Augusta	Beverley	Coolgardie	Cue	Bidyadanga	Carnarvon (Gascoyne)
Bridgetown	Boddington	Esperance*	Dongara	Broome*	Denham (Gascoyne)
Busselton	Boyup Brook	Kalgoorlie*	Geraldton*	Derby	Exmouth (Gascoyne)
Collie	Brookton	Kambalda	Kalbarri	Fitzroy Crossing	Karratha*
Dunsborough	Bruce Rock	Laverton	Lancelin	Halls Creek	Roebourne
Harvey	Corrigin	Leonora	Meekatharra	Kununurra	South Hedland*
Manjimup	Cranbrook	Norseman	Morawa	Lombadina	Onslow
Margaret River	Cunderdin	Ravensthorpe	Mount Magnet	Warmun	Paraburdoo
Nannup	Dalwallinu	Wiluna	Mullewa	Wyndham	Tom Price
Pemberton	Darkan		Northampton		Newman
Pinjarra	Dumbleyung		Three Springs		
Waroona	Denmark				
Yarloop	Gingin				
	Gnowangerup				
	Goomalling				
	Hyden				
	Jerramungup				
	Jurien				
	Katanning				
	Kellerberrin				
	Kojonup				
	Koorda				
	Kulin				
	Lake Grace				
	Merredin				
	Moora				
	Mount Barker				
	Narembeen				
	Narrogin*				
	Northam*				
	Pingelly				

South West	Great Southern/Wheatbelt	Goldfields-Esperance	Mid-west	Northwest (Kimberley)	Northwest (Pilbara)
	Quairading				
	Southern Cross				
	Tambellup				
	Wagin				
	Wickepin				
	Williams				
	Wongan Hills				
	Wyalkatchem				
	York				

Note: Metropolitan visits are not included in above table.

