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EXECUTIVE SUMMARY

The NSW Women and Heart Disease Equity Program commenced in 2015 to raise awareness and positively impact on the heart health of women. It was funded through the Heart Foundation’s Major Gifts initiative for a three-year period. Continued funding from committed donors enabled elements of the program to continue into a fourth year. The program was based on four pillars to address the key influencers on women’s heart health: community awareness, community engagement, health professional engagement and addressing research gaps.

Principal calls to action for the program were for women to recognise the personal relevance of heart disease; to have a heart health check, know the full range of warning signs for a heart attack and to help raise awareness by sharing this information with female friends or family members.

Heart Foundation HeartWatch tracking data collected during the program period 2015-2017 found that:

- awareness of heart disease among Sydney women increased by 36%, and
- the number of Sydney women having heart health checks increased by 20% - equivalent to an additional 50,000 women.

Unique Features of the NSW Women and Heart Disease Program:

1. Equity focus with strategies developed to reach women in rural and remote, low socio-economic, Aboriginal and culturally & linguistically diverse communities.

2. Comprehensive scope, incorporating mass media, community and health professional education and capacity development, research and advocacy.

3. Funding sourced entirely through philanthropic means setting a new benchmark for our major gift strategy within the Heart Foundation.

4. Distinctive brand and logo: #womenshearts: Making the Invisible Visible, to resonate with women, clinicians, researchers and media.

5. Engagement of women living with heart disease from the outset of the program.

6. Development of a multidisciplinary approach to ensure that women’s unique risk factor profile was addressed.
Key achievements:

Community Awareness
- Over 500 media reports made mention of the Making the Invisible Visible campaign, with approximately 4 million people reached in 2017, and another 6.5 million in 2018.
- Visitation to the Making the Invisible Visible pages on the website increased by 20% from 2016 to 2017 and a further 23% from 2017 to 2018.

Community Engagement
- Twenty Community Grants were completed between 2015 and 2018 with over 4,500 women actively participating in events and education sessions.
- 36 videos featuring women’s stories have been produced with over 120,000 views at the time of this report.

Health Professional Engagement
- Over thirty female cardiologists have participated in the Hearts and Heels Cardiology Roundtable.
- Over 170 clinicians, researchers and community health professionals attended the inaugural multidisciplinary Women and Heart Disease Forum in 2017.
- The cross disciplinary Pregnancy & Heart Disease Working Group has created Australian-first information for women and health professionals managing long term heart disease risk following vascular conditions of pregnancy.

Addressing Research Gaps
- Two research grants have been awarded to fund (1) world-first research into cardiac disease and pregnancy and (2) identification of data gaps limiting understanding of heart disease in women.
- The Women & Heart Disease program is represented on the Steering Committee for the NSW Health Translational Research grant testing interventions for women who have experienced preeclampsia, and the Working group developing an App for women through a South East Sydney Local Health District Grant.

Next Steps:
In 2018 the Heart Foundation transitioned to one unified organisation across the country and adopted the One Heart Strategy 2018-2020. The importance of heart disease in women has been identified under this strategy and elements of the NSW women and heart disease program will continue. This includes:
1. Hearts and Heels (or similar) Cardiology Roundtable – engaging with female cardiologists around the country to inform the work of the Heart Foundation and support the participation of women in Cardiology.
2. The Heart Collective – providing support and engagement opportunities for women living with heart disease.
3. 2019 Multidisciplinary Women and Heart Disease Forum – bringing together communities, clinicians and researchers to share advances in our understanding of heart disease in women.
4. Leading Australia’s public health response to sex and gender specific aspects of heart disease in women.
5. Contributing to campaign and resource development to ensure messages are appropriate and accessible to women.
6. Advocacy for identifying and responding to gaps in awareness, prevention, management and research into heart disease in women.
This report describes the NSW Women & Heart Disease program implemented from 2015 – 2018. The initiative was funded through the NSW Major Gifts Program and we are indebted to the program’s financial supporters and sponsors for the opportunity they provided to improve the heart health of women in NSW.

We are also grateful for the insight and commitment of Australian health professionals and researchers across multiple disciplines who have come together to build local knowledge, awareness and inform practice.

Finally we express sincere thanks to the women throughout Australia who have bravely shared their personal stories and experiences to raise awareness and improve women’s heart health.

This phase of the NSW program came to an end in 2018, however the Women and Heart Disease Program will now form an integral component of the Heart Foundation’s 2018-2020 ‘One Heart’ Strategy.

Why a focus on heart disease in women?

Heart disease is a significant health issue in Australia. It is a leading cause of death for both Australian men and women, and the leading cause of death in women globally.

Approximately 22 women die of heart disease every day in Australia. Almost three times as many Australian women will die of heart disease compared with breast cancer.

Heart disease is however often thought of as a disease of men while heart disease in women is universally described as: ‘under recognised, under treated and under researched’. This is no surprise because traditionally research and medical education has focused on males; the experience of women being long assumed to be the same as men. In the last decade however, growing research on sex and gender differences has highlighted the ways differences in physiology, pathology, behaviour and social constructs can impact on conditions such as heart disease.

Opportunities exist to improve women’s heart health to an even greater extent as we learn more about microvascular disease, the impact of multi-morbidities and sex specific risk factors such as vascular conditions of pregnancy.

The Women & Heart Disease Program was implemented to make women’s heart health more ‘visible’ to women and their families, health professionals and researchers. The program aimed to make it easier for women to understand their heart health, improve their access to information and appropriate services, receive appropriate care from health professionals and support researchers to build understanding of the unique heart health issues faced by women.

Heart Disease in Women is under-recognised

- Awareness that heart disease is one of the biggest killers of women is low among women themselves. Currently only 26% of women perceive heart related causes are the leading cause of death for Australian women.
- Women are less likely than men to believe heart attack is personally relevant to them (43% compared to 53%).
- More than a third (36%) of women stated they have a family history of heart disease.
- Seven in ten (71.6%), Australian women have been told by a doctor that they have a least one risk factor for heart disease.
- Younger women (25-45 years) are still at risk and it is important for women of all ages to manage their risk factors, be aware of the warning signs of a heart attack and to take action.

Heart Disease in Women is under-treated

- Women are less likely to have spoken to their GP about heart disease than men and are less likely to have had a Heart Health Check than men.
- In 2006-07 the age-standardised rate for a number of heart related procedures was lower for women than men with heart disease. This included:
  - Coronary angiography (23.8 procedures per 100 heart disease separations for females, 30.3 for males);
  - Echocardiography (4.7 procedures per 100 heart disease separations for females, 6.0 for males);
  - Percutaneous coronary interventions –or stents (16.0 procedures per 100 heart disease separations for females, 22.1 for males);
  - Bypass surgery (4.9 procedures per 100 CVD separations for females, 8.5 for males).
• Women who have experienced a heart attack and hospitalised in Australia are less likely to undergo invasive management, revascularisation, or be provided with preventive medication at discharge7.
• Women are less likely to be referred to and to complete cardiac rehabilitation programs following a cardiac event8,9.
• Women from culturally and linguistically diverse and Aboriginal communities are often most in need of support and lack access to adequate resources and information to seek the help they need.

Heart Disease in Women is under-researched
• Women are under-represented in research and clinical trials and even research conducted on cells and animals mostly includes males, contributing to gaps in our knowledge,10,11

Heart Foundation Context
The Heart Foundation began its work to address the inequities in women’s heart health in 2008. The national Engaging Women program focused on building the evidence base for understanding and improving heart disease in Australian women, and exploring women’s knowledge, attitudes and behaviours. This information informed the development of priority actions and led to the establishment and implementation of the Go Red for Women (GRFW) campaign in Australia.
Between 2008-12 our understanding of what women know and understand about heart disease grew and we also learnt more about how women are managed once they enter the health system. Significant gains in women’s awareness were made over this time as well as the development of a network of partners and supporters12.

In 2010 the Heart Foundation commissioned the Australian Institute of Health & Welfare (AIHW) to publish their landmark report: Women and Heart Disease, A Cardiovascular Profile of Women in Australia13. This report, for the first time, described the impact of CVD on Australian women; providing a baseline against which future monitoring could be assessed. It also provided the evidence to dispel the myth that CVD was not an important threat to Australian women.

Funding for a national program to address heart disease in women was ceased at the end of 2012 with the start of a new National strategy For all Hearts 2013-2017. Following this awareness of heart disease amongst women started to fall.

The Heart Foundation in NSW then committed to exploring opportunities for alternative funding sources for five different program proposals including women and heart disease. Of these, the donors identified Women & Heart Disease as their focus and the most appropriate for their financial support. A business case was developed and a small group of philanthropists assisted in its refinement and presentation to other potential donors. Using a major gifts methodology, the proposal quickly secured a number of influential donors, who remained champions for the program over the three year period. Their support allowed us to establish the base of the program and then to scale different elements of the program as more funds were secured.

The NSW Women and Heart Disease Program was launched in June 2015 and this report describes its strategies, achievements and the lessons that will be taken forward.
**Broader Environment**

Internationally the recognition of the significance of heart disease among women has grown in the last two decades along with increasing understanding of the gender and sex differences in risk factors, pathophysiology, management and outcomes. The American Heart Association published key documents describing current understanding of heart disease in women from 2007–14. These publications call for more research into the sex and gender specific features of cardiovascular disease, incorporation into risk assessment and treatment guidelines, awareness raising among women and better education for health professionals in relation to sex and gender differences.

Historically research and education programs focussing on mainstream conditions such as cardiovascular disease have focussed on a male model. This has limited the quality of health information available to women and to their healthcare providers. Greater attention to sex and gender difference has led to a new understanding of women’s experience of heart disease. For example, we know that:

- Women who experienced hypertension in pregnancy are at twice the risk of heart disease 10–15 years post delivery compared to women who did not.
- Smoking and depression are associated with a greater risk of cardiovascular disease in women than in men.
- Women who experience a ST-elevation Myocardial Infarction (STEMI) heart attack are less likely to undergo guideline-based treatment and more likely to have poor outcomes.
- Women are less likely to be referred to or complete a cardiac rehabilitation program.

Without adequate representation of women in research, sex and gender analysis of research findings and incorporation of sex and gender into education programs for health professionals, understanding of women’s experience of heart disease will be limited and based on the existing male model of disease. Women’s participation as researchers and cardiology professionals is low and is associated with:

- lower rates of female participation in clinical trials,
- fewer research projects focussing on the female experience of heart disease, and
- less opportunity for female patients to see a female cardiologist.

The reasons for the imbalance in the professions is complex and linked to broader societal gender equity issues. A number of initiatives are however contributing to a paradigm shift in the way we look at cardiovascular disease as well as in the workplace, boardrooms and homes. The Heart Foundation was uniquely placed to integrate the disparate aspects of this fast-changing environment to lead & innovate. The Women & Heart Disease Program identified and engaged partners from within and outside the cardiovascular health sphere to challenge this prevailing paradigm.
Preamble
Ahead of the official launch of the Women and Heart Disease Program in 2015, The Heart Foundation developed a comprehensive business case and action plan to improve the heart health of Australian women. Building on formative work undertaken in this space in the period 2008-2012, the business case outlined key strategies for change and was designed to be scalable according to budget and resources available.

Key factors impacting on women’s heart health were identified and informed program planning:

- women’s broader societal roles & priorities,
- access to and understanding of information related to heart health,
- gaps in research, diagnosis and treatment of heart disease in women,
- low rates of female participation in the field of cardiology and cardiovascular research,
- segmented nature of health services as women move between reproductive, obstetric, primary health and cardiovascular care.

The NSW Women & Heart Disease program design strategically addressed these factors.

Program Vision
To improve Australian women’s heart health outcomes, in order to reduce the death and disability associated with heart disease in women.

Program Objectives
1. To increase women’s awareness of heart disease as a leading cause of death amongst Australian women.
2. To increase women’s awareness of the non- chest pain symptoms associated with a heart attack.
3. To increase health professionals’ awareness of this health issue so key messages regarding heart disease in women are reinforced and that appropriate diagnosis and treatment of women is realised.
4. To advocate for improvements in research & the health system so that current disparities in the treatment and care for women with heart disease are minimised.

Program Target Audience
The Women and Heart Disease Program targeted the following audiences:

- Australian women aged 30-55 years
- Health professionals, researchers, media

The Strategy
The Women and Heart Disease Program was structured around four key pillars:

1. Community Awareness
2. Community Engagement
3. Health Professional Engagement
4. Research

Under each pillar strategies were developed, implemented and evaluated using a Program Logic Approach (see Appendix 1).
THE FOUR PILLARS

(1) Community Awareness

Rationale

The Go Red for Women Campaign was conducted by the Heart Foundation nationally between 2008 and 2015 with the aim of raising awareness of heart disease among women. Heart Foundation HeartWatch surveys tracking women’s awareness has demonstrated a rise in awareness levels of heart disease as the biggest killer of women from only 20% in 2008 to 35% in 2015. While this was a significant shift, continued efforts were needed to increase the number of women who see heart disease as relevant to them.

In 2016 the #womenshearts: Making the Invisible Visible Campaign was launched to broaden the reach and add depth to the messages delivered by the campaign.

‘Making the Invisible Visible’ Communications Campaign

The Heart Foundation developed and launched the holistic communications campaign, Making the Invisible Visible, in June 2016. The campaign ran again in June 2017 and 2018, providing an intensive burst of activity targeting the public and health professionals. The campaign was developed and delivered in NSW with a modest budget funding primarily print and radio communication. While the greatest coverage was in New South Wales, messaging and resources were made available to other states & territories for local delivery.

The primary aim of the campaign was to raise awareness of heart disease among women, increase awareness of warning signs of a heart attack and encourage women to have a heart health check. The Making the Invisible Visible Campaign was developed to target women 30-55 years. Messaging emphasised the importance of understanding and managing risk factors, understanding family history, and understanding the impact of other risk factors such as vascular complications during pregnancy (pre-eclampsia and gestational diabetes).

The Making the Invisible Visible campaign was delivered through a combination of targeted public relations and media engagement, a modest paid advertising investment and social media. The Heart Foundation engaged women impacted by various heart conditions to share their stories publicly to create a sense of community and connection, and to inspire others to be mindful of their heart health.

Making the Invisible Visible – Major Campaign Achievements

- Media reach and engagement results were very strong across all three years of the campaign with the campaign building positive momentum year on year.
- The campaign was successful in reaching the primary demographic of younger women, and in attracting this group to the Heart Foundation website for further information and engagement.
- Over 500 media reports made mention of the campaign over the three years of the campaign, with approximately 4 million people being reached in 2017 (and another 6.5 million in 2018). This equated to a commercial advertising value of approximately $1.4 million in 2017 (and another $2 million in 2018).16
- A modest paid advertising campaign budget of $180,000 in 2017 (and $150,000 in 2018) resulted in exceptional results and significant impact, with coverage on outdoor billboards, radio, weekend press, social and online mediums.
- Visitation to the Making the Invisible Visible pages on the website built steadily year on year, with a 20% increase being recorded from 2016 to 2017 (and a further 23.4% from 2017 to 2018. A total of 32,616 visits to the MIV sections on the website were recorded in 2018).17
- A range of social media influencers were engaged in 2018, enabling the Heart Foundation to reach approximately a further 1.5 million Australians with exceptional engagement rates recorded.
- Foxtel Lifestyle extended pro-bono support to cover the production of a Making the Invisible Visible television commercial in 2017 and on-air time during prime time viewing across all Foxtel Lifestyle channels. This enabled the Heart Foundation to significantly extend the reach of the Making the Invisible Visible campaign, across that year.

The MIV communications campaign has established itself as a contemporary and engaging campaign appealing to both women and men, the community, clinicians and researchers. It is a campaign that consistently resonates and captures media and public attention.
Women and Heart Disease Ambassadors

The Heart Foundation has continued to engage several well-connected women and men in the Women and Heart Disease Program. In 2017, media identity and ex-Getaway reporter Kelly Landry joined the campaign as hero ambassador. Defying the stereotype, Kelly has generously shared her story of a woman living with heart disease.

We are also grateful to our expert spokespeople who have made it possible to engage media interest in this issue. Associate Professor Lynne Pressley has been key among a team of female cardiologists always willing to share their expertise.

The Governor His Excellency Retired General David Hurley has supported the program since its inception. He launched the Women and Heart Disease program in June 2015, launched the inaugural MIV campaign in Casino in 2016, and presided at our end of program event in Lismore in 2017.

Gear Up Girl

The Heart Foundation partnered with Bicycle NSW to sponsor the annual Heart Foundation Gear Up Girl bike ride over the 3-year Program. The Gear Up Girl event is a response to the fact that more men than women ride their bike for recreation and transport due to reasons including confidence, safety concerns and male cycling stereotypes.

- Only 7% of Australian women use a bicycle for transport\(^{18}\).
- Men were more than twice as likely to have ridden a bike for commuting purposes compared to women, with those living within 10km from the CBD also more likely to have ridden a bike for commuting purposes than those living at least 20km from the CBD\(^{19}\).
- Men are twice as likely as women to have reported that they mainly ride on busy roads\(^{4}\).

Over 3,600 women and young girls have participated in the bike ride between 2016 and 2018 with numbers
(2) Community Engagement

Rationale

We know that heart disease is not spread evenly throughout the community.

- Cardiovascular disease risk factors for Indigenous people are higher than for the non-Indigenous population and these rates increase for both populations with remoteness.
- Indigenous women are 3 times as likely to be hospitalised with heart disease as non-Indigenous women.\(^{20}\)
- Low socio-economic status is associated with higher rates of cardiovascular disease in both sexes but, has a greater impact on risk of heart disease in women than men.\(^ {21}\)
- Women from culturally and linguistically diverse backgrounds, including refugee women, have lower access to mainstream information and services due to language and cultural issues.

Strategies were developed to (1) ensure that messages were relevant and accessible and (2) meet the needs of populations most at risk. This was done in partnership with community-based organisations who had a strong history of working with these vulnerable populations.

Implementing community engagement strategies also develops the capacity of health professionals and community members across the state to champion the Women and Heart Disease Program.

Community Grants

To raise awareness and make a difference to women’s heart health in communities most in need, the Heart Foundation awarded a series of targeted grants to community-based organisations across NSW. Grant funding has been directed toward rural and regional, Aboriginal, low socioeconomic and culturally diverse communities, where the burden of heart disease in women is greatest.

Over 4,500 women in NSW have been reached face to face through the community grant program specifically since June 2015. This has been achieved through a variety of strategies designed locally to resonate with and meet the needs of local communities. Many more have had access to heart health information via traditional and social media and resource development and distribution by the funded organisations that continues beyond the scope of the funding. Much of this is ongoing.

At the time of writing this report, 20 community grants had been awarded.

- A total of 103 organisations were involved in raising awareness around the state as a result of the 20 projects funded in 2015 and 2016. Of these, 23 were additional organisations engaged by the original partners during the course of their project.
- Seventeen of the 20 projects organised events as part of their strategy, with total attendance ranging from 25 to over 1000 women. Five of the projects included heart health screenings and 949 women were assessed.
- A total of 4,618 community members attended women and heart disease events and education sessions provided as part of these grants.
- Of the attendees of events described above, 56% were from regional, rural or remote NSW. Overall 24% were Aboriginal women from both regional and metropolitan locations and 30% came from culturally and linguistically diverse communities including Arabic, Cantonese, Hindi and Turkish speaking communities.
- In addition to face to face contact, over 13,000 resources were disseminated to community members through participating organisations across NSW.
- Videos produced through the community grants program have had over 92,000 views.
- A total of 106 local community champions were engaged to spread the messages through their own communication channels.

Beyond the grant period:

1. Most of the grant recipients continue to implement activities and use resources as part of normal & ongoing service delivery.
2. Ongoing education and program delivery by 20 bilingual community educators trained in the HeartSmart program.
3. Women’s Health NSW engaged to develop heart health screening and referral program for delivery through Women’s Health Centres across NSW.
4. Development of resources with or by CALD NSW and Aboriginal communities made available Australia-wide on the Heart Foundation website.
5. Participation in Multicultural Health NSW events in 2017 and 2018 for Multicultural Health Week, showcasing resources developed as part of the Community Grants Program.
Regional Women & Heart Disease Events

Tamworth

Three events were held in the regional centre of Tamworth in 2016, attracting 175 community members and a further 170 health professionals. Led by the Heart Foundation’s regional Tamworth office, evaluation highlighted increases in participants’ understanding of heart disease in women and health professionals’ ability to respond to women’s heart health needs. As well as raising awareness among community members and health professionals. These events have led to the establishment of a Cardiovascular Health Working Group made up of hospital, general practice and Heart Foundation representatives.

A detailed report of the 2016 Tamworth initiative is available on request.

Central Coast

As the result of a Community Grant received in 2017, The Central Coast Local Health District implemented a multidisciplinary Women and Heart Disease professional development event in June 2018. Built on the model developed in Tamworth, over 100 attended the day in Tumbi Umbi. The event was held in the month of June to coincide with the Making the Invisible Campaign and included the launch of the Heart Foundation’s video on hypertension in pregnancy and cardiovascular risk: Preeclampsia - explained by experts and women who experienced it.

Newcastle

In 2018, the Heart Foundation’s Newcastle office conducted the third regional Women & Heart Disease event for health professionals in Argenton. Over 100 health professionals and community members attended the day which included presentations from a number of locally-based agencies and health professionals. The event was also the setting for the launch of a video telling the story of a Newcastle mother and daughter affected by pre-eclampsia.

Sharing Women’s Stories

The face of heart disease has traditionally been male, with a paucity of women’s stories adding to our understanding of heart disease.

The Women & Heart Disease program has now produced 36 videos featuring women’s stories. These have been viewed a total of 120,444 times at the time of this report. The videos include stories from women who have experienced conditions including coronary heart disease, congenital heart disease, heart disease following vascular conditions of pregnancy, or SCAD.

You can view the videos here: www.heartfoundation.org.au/your-heart/women-and-heart-disease/womens-stories

The Heart Collective

The Heart Collective was established to bring together women living with various heart conditions. It was created following the feedback received by the Heart Foundation from many women, describing the importance of regular contact with other women living with heart disease.

Since its launch in November 2017, the Collective has quickly gained momentum, now comprising approximately 60 women in its Facebook group. While the ages of the women vary, many members are younger women, and all are united by the common bond of understanding what it is to have your life impacted by a heart condition.

The members of The Heart Collective have engaged in a range of activities to raise awareness of the issue of heart disease including:

- Sharing their stories on video, blog, or for Heart Foundation fund-raising activities including appeals.
- Raising funds through participation in events such as My marathon and City to Surf.
- Participating in the Heart Week Harbour Bridge Activation and City to Surf.
- Participating in television, newspaper and/or radio during June MIV campaigns.
- Sharing their stories at community and health professional events.
- Joining the Heart Foundation in an advisory Board capacity.

The Heart Collective meets quarterly in Sydney and the closed Facebook group is a forum for all to share information and support.
Women with Heart Luncheon

The annual Women with Heart fundraising luncheon has been hosted by the Heart Foundation during the month of May 2016-2018 inclusive, bringing together influential and well-connected professionals with an interest in the Women and Heart Disease program. The ticketed event has proven an important education and fundraising event during each of the 3 years of Program delivery.

A consistent format has been used for the event in NSW and was recently successfully replicated in Victoria in 2018. Due to the success as an awareness-raising and fundraising event, a toolkit is being developed for use across the organisation nationally.

Community Champion Events

In 2017, the Heart Foundation was fortunate to have several Community Champions step forward to organise and host events to raise awareness of women’s heart health and to generate funding to be directed to the Women and Heart Disease Program. Community Champions are a critical extension of the Heart Foundation fundraising team, and as loyal advocates and ambassadors, contribute significant time, energy and effort to ensure events are successful and deliver on objectives. We would like to thank our strong network of Community Champions, for the contribution made in the delivery of the Women and Heart Disease Program, and we look forward to further building on these successes.

(3) Health Professional Engagement

Rationale

In addition to raising awareness among women and promoting their engagement with the messages, a comprehensive approach to promoting women’s health must also address the health service that women access. A range of strategies have been implemented to (1) consult with health care providers and facilitate their input into program planning (2) identify priority issues and (3) deliver responses to identified issues.

Hearts and Heels Female Cardiology Roundtable

As part of the Heart Foundation’s health professional engagement strategy, the Hearts and Heels Cardiology Roundtable chaired by cardiologist Ass. Prof Lynne Pressley was formed in 2015. Established predominantly as a professional development and knowledge sharing forum, the Cardiology Roundtable comprised over 30 female cardiologists and the group has formally met seven times since launch in 2015. We have engaged a series of guest speakers as part of the professional development component of the Roundtable with topics including atrial fibrillation and its impact on women, rheumatic heart disease and pregnancy, hormones and risk of CVD across the life course, 45 and Up Study findings on women and CVD. Roundtable members have variously supported the Women & Heart Disease Program including:

- Making presentations to health professionals
- Participating in media interviews
- Participating in the development of educational video material
- Identification and connecting female patients as case studies
- Participation as presenters and panellists at the 2017 Women & Heart Disease Forum
- Participation in Heart Foundation Pregnancy Think Tank and subsequent Working Group.

The Women & Heart Disease Program sponsored four members of Hearts and Heels to participate in the 2018 Franklin Women Mentoring Program. The goal of this structured program is to support the career development of women who are looking to progress to leadership roles in their field. The program also engages senior leaders as mentors in inclusive leadership in health and medical research. Both mentors and mentees reported on the benefits of this program in advancing their own careers and developing strategies to overcome barriers for women in medical specialties.
Interdisciplinary Women and Heart Disease Forum
An initiative that arose from a discussion at one of the Hearts and Heels Roundtable meetings quickly became a reality and in June 2017, an interdisciplinary Women and Heart Disease Forum was held in Sydney, the first forum of its kind in Australia.

It brought together 170 of the country’s leaders in cardiology, obstetrics, emergency medicine, oncology, midwifery, general practice and public health, to address gender disparities in heart disease from a multi-disciplinary perspective.

Over fifty clinicians, researchers and community health professionals contributed as presenters or panel members.

Outcomes included:

- Development of a 5-point action plan and commitment to host another forum in 2019.
- Commitment of NSW Health to engage with the Heart Foundation and clinicians from across disciplines to address the gaps in the follow up and management of heart disease risk post hypertensive disorders experienced in pregnancy.
- Collaboration between researchers involved in the study of preeclampsia, resulting in the award of a 2018 NSW Health Translational Research Grant.

The intent was to commence the development of a framework for a truly holistic ‘whole of patient’ care agenda recognising that the development of cardiovascular disease is intimately linked to other aspects of women’s health. It facilitated multi-disciplinary communication and knowledge sharing to better manage heart disease in women.

The inaugural forum was over-subscribed, with health professionals wait listed and significant interest shown from clinicians across Australia.

A webinar was produced including all plenary and concurrent presentations. This has been viewed by a further 150 people from across the country following the Forum.

Attendees prioritised 5 calls for action. One of these was to repeat the Forum in two years time; this is now scheduled for June 19 2019 to review progress and advance the agenda.

A detailed report, video footage and a link to the Webinar containing all presentations can be found here:

Pregnancy and Heart Disease Initiative
As a direct result of actions determined at the 2017 Women and Heart Disease Forum, a multidisciplinary Pregnancy and Heart Disease Think Tank was hosted by the Heart Foundation in March 2018.

Facilitated by ABC Chief Medical Reporter Sophie Scott, the 30 attendees included representatives of cardiology, general practice, midwifery, obstetrics, endocrinology and research.

The work of this group and the subsequent Working Group has resulted in the development of Australian-first resource materials for women and their health professionals in relation to pregnancy and long-term heart disease risk management.

New information is now available on the Heart Foundation website for women and health professionals. Presentations on pregnancy conditions and heart disease risk have been also delivered via the following professional networks in NSW:

- Midwifery
- Aboriginal Community Controlled Health Organisations
- Society of Obstetric Medicine
- Royal Australian College of General Practice
- Australian Public Health Network
- Negotiations are currently underway with NSW Health for delivery of Information Sheets to women on discharge from hospital and assessment and management guidelines for GPs through the RACGP Health Pathways system.

Information developed for health professionals can be found here:

Information developed for consumers can be found here:
Research

Rationale

Research into heart disease in women has lagged behind research conducted on men. While sex and gender differences exist in the experience of heart disease, the majority of research has been conducted on males and findings extrapolated to women. With a growing understanding of these differences and the impact of sex and gender specific risk factors, the Women and Heart Disease Program has funded and advocated for research to fill current knowledge gaps.

Funded research

Two Women and Heart Disease Research Grants to the value of $150,000 each have been awarded and are currently underway:

1. Prof Elizabeth Sullivan (University of Newcastle)

NSW longitudinal population-based study of first-time mothers with cardiac disease and their babies

Cardiac disease in pregnancy is a leading cause of maternal death in high-income countries. Evidence-based guidelines to assist in planning and managing the healthcare of affected women is lacking. The objective of this research is to produce the first documentation and analysis of the experience of pregnant women with existing or acquired cardiac disease.

The findings will be used to inform the development of relevant guidelines and contribute to improved healthcare services for these women.

2. Prof Emily Banks (SAX Institute and ANU)

Large-scale linked and clinical data to quantify and address gender-based variation in cardiovascular disease risk factors, incidence, care and outcomes.

The research will draw on seven data sources, including nationally representative surveys, large-scale linked data and detailed clinical datasets to quantify differences between women and men for: CVD risk factors; CVD hospital admissions and deaths; receipt of CVD procedures in hospital following an acute CVD event; physical disability, psychological distress and quality of life after a CVD event.

When the project is complete, Australia will have integrated data on gender disparity for multiple CVD types across the CVD journey, supporting targeted intervention to improve prevention, care and outcomes for CVD in women.
HeartWatch Survey Data: What Women Told Us

Data was collected using the Heart Foundation’s National HeartWatch Survey. There was oversampling of women in Sydney from June 2015 (baseline) to December 2017. This included: women’s awareness of heart disease as the biggest killer of women, reporting having had a heart health check in the previous two years, awareness of warning signs and intention to call 000 if experiencing symptoms. Data was compared over time and with the sample of women living in other Australian capital cities. The following comparisons were reported and where these reached statistical significance, this is noted.

- **More women aware:**
  At the beginning of the program Sydney women aged 30 to 54 were less likely to perceive heart disease as the leading cause of death in women compared to women aged 30 to 54 residing in other metropolitan areas across Australia (14 percent compared to 20 percent). By the end of the campaign period, awareness amongst Sydney women was on par with metropolitan areas across Australia.

- **More women having a heart health check:**
  By the end of the campaign period, women aged 30 to 54 residing in Sydney were more likely to report having a heart health check compared to women aged 30 to 64 residing in other metropolitan areas across Australia (34 percent compared to 24 percent, p=0.001).

- **More women likely to call 000:**
  Compared to the start of the campaign, in December 2016 there was a significant increase in the proportion of women aged 30 to 54 residing in Sydney who would call Triple Zero (000) if experiencing severe chest pain and nausea (48% compared to 57%, p=0.02). At the end of the campaign period, intentions to call Triple Zero (000) if feeling dizzy with some chest discomfort increased by 50 percent compared to initial results in 2015 (21 percent compared to 14 percent, respectively).
  The initial results also portrayed Sydney women aged 30 to 54 as less likely to report that they would call Triple Zero (000) if feeling dizzy with some chest discomfort compared to women aged 30 to 54 residing in other metropolitan areas across Australia (14 percent compared to 18 percent). By the end of the campaign period, awareness amongst Sydney women was marginally higher than metropolitan areas across Australia (21 percent compared to 20 percent).
The Program was developed with an equity focus with strategies developed to reach women in rural and remote, low socio-economic, Aboriginal and culturally and linguistically diverse communities. This was done to ensure that women at most risk were reached by the program. Other important components of this Women and Heart Disease Program included:

1. The use of a Community Grants Program where organisations serving priority communities were resourced to deliver messaging and provide services according to the needs of their communities. Resources have been developed as a result of this initiative, many of them coming directly from the women themselves (see Appendix 2).

2. The program was comprehensive in scope, incorporating mass media, community and health professional education and capacity development as well as funding and advocacy for research and policy change. This was done to reinforce the messaging delivered through any one channel and to broaden the audience for these messages. This approach is one that has been identified as best practice health promotion and the one most likely to lead to sustained change.

3. Funding for the program was sourced entirely through philanthropic means setting a new benchmark for our Major Gift Strategy within the Heart Foundation. The Program was implemented as an effective collaboration between health, marketing and fund-raising functions within the organisation. A cross functional Working Group contributed to planning and delivery. This was effective with the development of Terms of Reference and Responsibility Matrices.

4. Establishment of a distinctive brand and logo for the program #womenshearts: Making the Invisible Visible, had resonance not only with women but with clinicians, researchers and media as well. There was acknowledgement of the low levels of awareness of heart disease among women, but also of gaps in diagnosis, treatment and research that were included in the Program remit.

5. Engagement of women living with heart disease from the outset of the program. This ensured that messaging was relevant and strategies appropriately targeted. Women were identified through a range of networks including clinic and cardiac rehabilitation contacts and community-based organisations participating in the Community Grants Program. Consultation with women has been essential in decision-making about priority actions, messages and communication channels.

6. Taking a multi-disciplinary approach to address women’s heart health to ensure that the unique female cardiovascular risk factors were taken into account. This meant focusing our initial work on gaps in understanding of the increased risk vascular complications in pregnancy has on future CVD risk. We engaged experts in obstetrics, midwifery, endocrinology and general practice to help us do this. Seamless care of women experiencing these conditions is only possible when all practitioners involved in their care are aware of their risk and recommendations for care. An example of the multidisciplinary nature of reducing risk of women experiencing preeclampsia, using a life-course approach is included in Appendix 3.
The broader social, health, workplace and research environments continue to evolve in relation to gender equity. Key advances that will influence women’s cardiovascular health and enhance Heart Foundation strategies include:

- the recent establishment of Women in Cardiology as a Committee of the Cardiac Society of Australia and New Zealand;
- the establishment of several Women’s Heart clinics in hospital settings across the country to capture women’s experience and potentially enhance recruitment into clinical trials;
- greater attention being paid by the NHMRC and other research funding bodies to address sex and gender in research analysis, reporting and publication;
- greater emphasis on gender equity in clinical practice, leadership and research.

The Heart Foundation has committed to continuing its contribution to change through the inclusion of women’s heart health in its 2018-2020 One Heart Strategy for the new unified organisation. This will be reflected in strategies that:

1. Ensure heart disease messages are relevant to women and that women have access to information that is evidence-based.
2. Continue and expand engagement with women living with or at risk of heart disease; particularly those from communities where the burden is greatest.
3. Enhance relationships with researchers and clinicians who can make a difference to women’s heart health across the life-course.

In 2019, the Women & Heart Disease program will work nationally to:

1. support and expand the Heart Collective initiative for women living with heart disease
2. support and expand the “Hearts and Heels” Cardiology Roundtable
3. conduct the 2nd Multidisciplinary Women & Heart Disease Forum in Sydney on June 19.
4. fill the gap in evidence-based, gender specific information for women at risk of or suffering from heart disease.
## APPENDIX 1: APPLICATION OF THE PROGRAM LOGIC MODEL

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>ACTIVITIES</th>
<th>OUTPUTS</th>
<th>SHORT-TERM IMPACTS</th>
<th>INTERMEDIATE IMPACTS</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insights from the 2008-2012 National Engaging women program.</td>
<td>Making the Invisible Visible Campaign</td>
<td>Women heart messages about heart disease, heart health checks and warning signs via media channels.</td>
<td>Women increase knowledge and awareness of heart disease, importance of heart health checks and warning signs.</td>
<td>More women have a heart health check.</td>
<td>Reduced heart disease morbidity and mortality rates among Australian women.</td>
</tr>
<tr>
<td>Funding from major donors and sponsors.</td>
<td>Community Grants program</td>
<td>Women access information through local community agencies.</td>
<td>Health professionals increase knowledge of the experience of heart disease in women.</td>
<td>More women know and act on the warning signs of a heart attack.</td>
<td></td>
</tr>
<tr>
<td>Engagement from clinicians, researchers, community organisations and women in the community.</td>
<td>The Heart Collective</td>
<td>Women have access to Heart Foundation support &amp; advocacy group.</td>
<td>Women at increased risk of heart disease due to pregnancy condition have increased access to information about ways to reduce their risk.</td>
<td>Clinicians use evidence-based information and guidelines to ensure that women are diagnosed and treated appropriately.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hearts and Heels Cardiology Roundtable</td>
<td>Female cardiology network established; 2017 Women &amp; Heart Disease Forum conducted.</td>
<td>Clinicians have access to evidence-based information about heart disease in women.</td>
<td>There is a reduction in gaps in understanding of the pathophysiology of heart disease in women and in sex disparities in in-hospital and post discharge CVD care.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research Funding</td>
<td>New information for women and clinicians developed.</td>
<td>Funding bodies for CVD include mandatory requirements for sex and gender sub analysis in their research and associated publication of findings</td>
<td></td>
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</tbody>
</table>
APPENDIX 2: COMMUNITY GRANTS PROGRAM: RESOURCES PORTFOLIO

All the projects produced resources to help disseminate heart health messages. The most common were education modules (five projects) and leaflets (five projects) with four producing videos and posters. Most of the projects produced more than one type of resource.

The number of resources distributed ranged from 30 up to 2,000, mainly distributed at project events by participating organisation staff. Examples include the following:

Education Modules/Programs

- **HeartSmart Training Program** and Program Package for Bilingual Community Educators.
- **Heart to Heart Peer Education** for Heart Health for women with intellectual disabilities.
- **Love Your Heart Education & Exercise Program** for newly arrived women refugees from Iraq & Syria.
- **Heart Disease Awareness for Aboriginal Women in the Northern NSW**: program delivered in remote settings around Lismore.

Videos

- **Making Messages**: video produced by and for Aboriginal Women in Southern NSW promoting heart health checks.
- **Looking After our Heart Health**: 5 videos and associated resources in 5 languages encouraging women to have a heart health check and call an ambulance when experiencing symptoms.
- **Healthy Women-Active Women** – a series of videos in Italian and Arabic featuring physical activity among local women.

Written Resources

- **Heart Health Postcards**: local artwork with Heart Foundation messaging for distribution through regional health services.
- **Questions to Ask when Having a Heart Health Check**: translated into Cantonese, mandarin, Korean, Turkish, Arabic, Hindi, Khmer, Vietnamese.
- **Warning Signs of a Heart Attack**: translated into Turkish, Arabic, Hindi, Khmer, Vietnamese.
- **Warning Signs of a Heart Attack**: adapted for Aboriginal women.

All resources available on request.
APPENDIX 3: HEART HEALTH JOURNEY MAP FOR WOMEN EXPERIENCING PREECLAMPSIA

<table>
<thead>
<tr>
<th>Information ‘touch points’</th>
<th>Blue Book / Discharge Notes</th>
<th>‘Postcard’ - take to follow-up</th>
<th>Information sheet with web address</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Woman’s Journey</td>
<td>DIAGNOSIS</td>
<td>BIRTH</td>
<td>HOSPITAL DISCHARGE</td>
</tr>
<tr>
<td>Treating healthcare professional</td>
<td>Obstetrician</td>
<td>Obstetrician</td>
<td>Midwife / AHW</td>
</tr>
<tr>
<td></td>
<td>Maternal/child health nurse</td>
<td>GP / AMS</td>
<td>Cardiologist / AMS</td>
</tr>
<tr>
<td>Training opportunities</td>
<td>Top-up</td>
<td>NSW RANZCOG meeting</td>
<td>AMS network</td>
</tr>
<tr>
<td></td>
<td>Foundational</td>
<td>Undergraduate training</td>
<td>RACGP webinar Health Pathways</td>
</tr>
<tr>
<td>Guideline opportunities</td>
<td>Updated SOMANZ/other obstetric guidelines</td>
<td>Green Book</td>
<td></td>
</tr>
<tr>
<td>Consumer self-help</td>
<td>Heart Foundation website and helpline, NSW Get Healthy (in Pregnancy) Service</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pregnancy complications & heart disease journey:
a life-course approach
REFERENCES

1. Many activities continued into 2018 due to the availability of funds. This report describes evaluation findings to the end of 2017 or 2018 depending on the initiative and evaluation method used.

2. Heart Foundation. HeartWatch June 2018

3. Heart Foundation HeartWatch September 2018

4. ABS, 2013. Australian Health Survey: Biomedical Results for Chronic Diseases, 2011-12. Australia, ABS cat no. 4364.0.55.005


9. Khan et al.


16. Source: Isentia Independent media reporting

17. Source: Heart Foundation Digital statistics.


20. Heart Foundation. Key Heart Stats. Aboriginal and Torres Strait Islander Peoples. 2018
