# Impact of news of celebrity illness on breast cancer screening: Kylie Minogue's breast cancer diagnosis

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## ABSTRACT

**Objectives:** To describe the main media narratives in the reportage of singer Kylie Minogue's illness with breast cancer; and to assess the impact of this coverage on bookings for screening for breast cancer by mammography in four Australian states.

**Setting:** Government sponsored BreastScreen programs in Queensland, Victoria, Tasmania and Western Australia.

**Main outcome measures:** Narratives on breast cancer in television news programs 17–27 May 2005; initial and re-screening bookings for mammograms.

**Participants:** Women aged ⩾ 40 years who booked for mammograms in BreastScreen programs in the 19 weeks before, the 2 weeks during, and the 6 weeks after the publicity.

**Results:** There was a 20-fold increase in news coverage of breast cancer, which emphasised that young women do get breast cancer and that early detection was critical. Overall screening bookings rose 40% in the 2 weeks of the publicity, with a 101% increase in non-screened women in the eligible age-group 40–69 years. Six weeks after the publicity, bookings remained more than a third higher in non-screened women.

**Conclusions:** News coverage of Kylie Minogue's breast cancer diagnosis caused an unprecedented increase in bookings for mammography. Health advocates should develop anticipatory strategies for responding to news coverage of celebrity illness.


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News stories about health and medicine can precipitate dramatic changes in consumer behaviour. For example, news of health problems related to hormone replacement therapy saw an immediate 58% reduction, and a prolonged 40% reduction, in use of hormone replacement therapy in New Zealand.[1] In 2000, a live, on-air colonoscopy undertaken on a prominent US TV show host saw a sustained 9-month increase in the number of colonoscopies performed by a panel of 400 endoscopists.[2] A TV "soap opera" in England featuring a story about the importance of cervical screening was associated with a 21% increase in women having Pap smear tests.[3]

Health issues can receive substantial publicity when a celebrity dies, becomes ill, undergoes a medical procedure, or announces a health-related lifestyle change.[4] Capitalising on the interest generated by celebrity illnesses can increase news coverage of health topics to levels that would ordinarily require huge campaign budgets.[5-9]

On 17 May 2005, it was announced that the singer Kylie Minogue had been diagnosed with breast cancer. Eight of Britain's 10 daily national newspapers ran reports of her diagnosis on their front pages. *The Sun*, the London-based tabloid, devoted its first seven pages to the story, as did the *Herald Sun* in Melbourne (Kylie's home town).

We determined the effect of Kylie's breast cancer announcement on screening for breast cancer by mammography.

## METHODS

### Media coverage

As part of a broad project examining the depiction of health issues in the news media, which commenced fortuitously on 3 May 2005, we recorded all television news and current affairs programs broadcast from Sydney on five free-to-air channels. We thereby recorded all material on these channels which explicitly referred to Kylie Minogue, or which used her diagnosis as a news hook to cover various aspects of breast cancer. While the channels operate state-based news bulletins (with one being national), stories of national interest such as this one are typically shared between the state bulletins and so broadcast nationally, as are current affairs programs. We noted the dominant news discourses in each broadcast item.

### Mammography data

BreastScreen is a national, federal and state government-supported program providing free mammograms for Australian women. The program actively targets women aged 50–69 years, but, on request, will accept women aged 40–49 years and those over 69 years for screening. Women whose doctors suspect possible malignancy can be referred for a mammogram that will also be paid for by the government. Private screening services aggressively promote mammograms to women aged less than 40 years.

We obtained mammogram booking data from four state BreastScreen units for the 19 weeks before the story broke (1 January – 13 May 2005), the 2 weeks during which the story broke and received its most intensive coverage (16–26 May 2005), and the 6 weeks after the publicity period (27 May – 9 July).

BreastScreen units report that in excess of 90% of bookings translate into screenings.

## RESULTS

### Reportage of breast cancer

In the 13 days (3–16 May) before the publicity about Kylie Minogue, there were six news items broadcast on breast cancer for a total time of 13 min 27 s. In the 7 days (17–23 May) following the announcement (after which the story temporarily went into recess, until briefly re-emerging as news about Kylie's prognosis after surgery), there were 74 separate items on breast cancer broadcast for a total of 147 min 40 s, representing a 20-fold increase in average daily television attention to breast cancer compared with the previous 13 days.

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Box 1 shows the dominant news discourses in the coverage. The most common were comments on the importance of Kylie's personal attitude toward recovery (references to her being a fighter, and strong and fit, accounted for 18% of all items), and particularly the importance of support from her family and friends (61%) and the public (51%). Despite her celebrity status, Kylie was embraced as "one of us" — almost as a favourite "neighbour" whom we would all want to support and see recover from her illness.

While her celebrity status was a key factor driving the coverage, her age (36 years) and the notion that breast cancer was no respecter of celebrity status, wealth or youth (it was something that "could happen to anyone") were often emphasised. Typical comments included:

> Any woman of that age, to be diagnosed with that condition, it does send a shudder through you. (*Prime Minister*)

> Another reminder that cancer is no respecter of youth. (*leading news reader*)

> People who saw Kylie just last week in the "Showgirl" tour just can't believe someone so young and healthy could get a diagnosis like this. (*journalist*)

> She's only 36 years of age. My mother died, and she was 51, and I thought that was young. I guess it's a wake-up call to everyone out there ... breast cancer is not a disease any more that affects 45–65-year-old women. (*Ronan Keating, singer*)

Kylie was repeatedly said to have a good prognosis because she detected the cancer early, and this boded well for her recovery and survival (28%). The importance of early detection was often stressed (8%), and 26% of items gave a more general prevention message. Journalists explicitly emphasised that vigilance and mammograms were relevant for all women:

> I guess the message is ... this hideous disease can affect anybody and Kylie has at least caught this in the very early stages, but if ever there was a warning, a wake-up call to ALL women, to be tested regularly, and often ... (*journalist*).

> No one's incapable of getting it and if it encourages more people, girls, to have check-ups, that will make our girl [Kylie] very happy. (*tour promoter*)

> The most salient message out of all this is that if it's found early, you're very likely to survive your disease. (*breast cancer expert*)

**1 Discourses in television coverage (74 news items) of Kylie Minogue's breast cancer diagnosis**

| Discourse | No. (%) |
|---|---|
| *Kylie specific* | |
| • Her prognosis, treatment and recovery details (overview) | 70 (95%) |
| • Benefits of early detection for her | 21 (28%) |
| • She is young to get breast cancer | 15 (20%) |
| • Her treatment options (detailed) | 13 (18%) |
| *General perspectives* | |
| • Private support helps a cancer prognosis | 45 (61%) |
| • Public support helps a cancer prognosis | 38 (51%) |
| • Young Australian breast cancer survivors | 25 (34%) |
| • Cancer is a battle | 20 (27%) |
| • Cancer education and prevention messages | 19 (26%) |
| • Personal characteristics help a cancer prognosis | 13 (18%) |
| • Criticisms of lack of availability of free mammographic screening to younger women/age barriers to having a mammogram | 12 (16%) |
| • Treatment options (women generally) | 11 (15%) |
| • Donations to the Cancer Council | 11 (15%) |
| • More women seeking mammograms | 11 (15%) |
| • "It could happen to anyone" | 7 (9%) |
| • Benefits of early detection (women generally) | 6 (8%) |
| • Explanation of national breast screening policy | 5 (7%) |
| • Effects of chemotherapy on fertility | 3 (4%) |

## Reportage of mammography

A dramatic increase in mammogram bookings at BreastScreen began to be reported by the media 2 days after the announcement of Kylie's diagnosis (15% of all items). One in six news items were critical of government policy on age-restricted free screening:

> Strangely, getting that screening is not so easy for women in Kylie's age group. (*leading national news reader*)

> It doesn't discriminate against ages, it's a disease ... I'd like to see that everyone, no matter what age they are, can have a mammogram for free. It's scary to think we could get it, or our daughters could get it. (*young woman with family history of breast cancer* )

In New South Wales, the political opposition seized the opportunity of media concern about lack of provision of free screening for younger women to attack NSW government policy (which is nationally determined):

> This is a situation the government has sat on. It would not have been exposed except for the Kylie Minogue situation. (*Shadow Health Minister*)

## Mammography bookings

The number of bookings for mammograms made at four state-based BreastScreen programs for the 19 weeks before the publicity, during the 2 publicity weeks, and for 6 weeks after the publicity, are shown in Box 2. The average weekly bookings during the 19 pre-publicity weeks (1 January – 13 May) were used as the index for comparison. There was a 40% increase in average weekly screening bookings made in the 2 weeks of publicity in the four states. The increase was most prominent (100.7%) in women being screened for the first time.

We obtained age-related data for the state of Queensland. The increase in bookings for screening in the age group 40–49 years in the publicity weeks was 69%, more than double the 25% increase seen in the age group 50–69 years.

Further, we found no evidence of a lead time or "borrowing from the future" effect, whereby previously unscreened women might have simply brought forward their intention to be screened, causing a decline in screening in the later period. In the 6 weeks after the 2-week intense publicity period, screening bookings continued to occur at largely unprecedented levels, being

**2 Number of mammogram bookings in four Australian states before, during and 6 weeks after the publicity about Kylie Minogue's breast cancer diagnosis**

| | Pre-publicity period 19 weeks: 1 Jan – 13 May | | | Publicity period 2 weeks: 16–26 May | | | Post-publicity period 6 weeks: 27 May – 9 Jul | | |
|---|---|---|---|---|---|---|---|---|---|
| | Initial screen | Re-screen | Total | Initial screen | Re-screen | Total | Initial screen | Re-screen | Total* |
| **Victoria** | | | | | | | | | |
| No. of bookings | 9 248 | 68 578 | 77 826 | 2 101 | 10 251 | 12 352 | 4 869 | 23 326 | 28 195 |
| Average bookings per week | 487 | 3 609 | 4 096 | 1 051 | 5 126 | 6 176 | 812 | 3 888 | 4 699 |
| Average weekly percentage change from pre-publicity period | | | | 115.8% | 42.0% | 50.8% | 66.7% | 7.7% | 14.7% |
| **Queensland** | | | | | | | | | |
| No. of bookings | 12 539 | 61 723 | 74 262 | 2 577 | 9 080 | 11 657 | 4 855 | 20 363 | 25 218 |
| Average bookings per week | 660 | 3 249 | 3 909 | 1 289 | 4 540 | 5 829 | 809 | 3 394 | 4 203 |
| Average weekly percentage change from pre-publicity period | | | | 95.3% | 39.7% | 49.1% | 22.6% | 4.5% | 7.5% |
| **Western Australia** | | | | | | | | | |
| No. of bookings | 5 966 | 32 086 | 38 052 | 1 124 | 3 564 | 4 283 | 2 279 | 7 427 | 9 766 |
| Average bookings per week | 314 | 1 689 | 2 003 | 562 | 1 782 | 2 142 | 474 | 1 238 | 1 628 |
| Average weekly percentage change from pre-publicity period | | | | 79.0% | 5.5% | 6.9% | 51.0% | –26.7% | –18.7% |
| **Tasmania** | | | | | | | | | |
| No. of bookings | 1 562 | 8 039 | 9 601 | 391 | 749 | 1 140 | 888 | 2 777 | 3 665 |
| Average bookings per week | 82 | 423 | 505 | 196 | 375 | 570 | 148 | 463 | 611 |
| Average weekly percentage change from pre-publicity period | | | | 139.0% | –11.3% | 12.9% | 80.5% | 9.5% | 21.0% |
| **Total*** | | | | | | | | | |
| No. of bookings | 29 315 | 170 426 | 199 741 | 6 193 | 23 644 | 29 432 | 12 891 | 53 893 | 66 844 |
| Average bookings per week | 1 543 | 8 970 | 10 513 | 3 097 | 11 822 | 14 716 | 2 149 | 8 982 | 11 141 |
| **Average weekly percentage change from pre-publicity period** | | | | **100.7%** | **31.8%** | **40.0%** | **39.3%** | **0.1%** | **6.0%** |

* Row and column total differences reflect rounding after averaging. ◆

39.3% higher in unscreened women, while remaining unchanged in previously screened women compared with the 19-week pre-publicity weekly averages.

## DISCUSSION

The dramatic increase in initial and re-screen mammography among eligible women is unprecedented in the Australian breast screening program. In view of Australian findings that recent (2001–02) rates of biennial screening (53% of eligible women) predict a 26% decrease in breast cancer mortality,[10] it might be expected that the significant "Kylie effect" on screening may further reduce breast cancer deaths. Despite considerable government investment in the promotion of mammography, 14 years after the commencement of the program an estimated 42.9% of the target age group 50–69 years have never been screened.[11]

The higher responsiveness of younger women shown in the Queensland data suggests the emphasis in news coverage of Kylie's age stimulated younger women to volunteer for screening. As women aged less than 40 years are ineligible to participate in the BreastScreen program, we cannot report on how many such women booked to obtain mammograms through private screening services or arranged with their GP to receive a bilateral mammogram on the pretext of it being a diagnostic screen. The latter data will be available in the next few months from the Health Insurance Commission.

Public health campaign evaluations generally highlight the role of campaign variables controlled by campaign organisers in explaining changes in behavioural outcomes, such as participation in mammographic screening. The "Kylie effect" we have described indicates that unplanned influences can also have profound effects on such outcomes. Rarely are these effects so obvious that they inspire focused research interest, as in this article, being generally relegated to background "noise" status.[12] However, breast cancer is a well reported public health issue in many nations, and arguments have been made that far more research attention should be focused on "bringing the background into the foreground",[13] and examining how news coverage influences outcomes and might be improved to increase participation rates.

Celebrity illnesses and related health events are inevitable, as is the massive news coverage these can bring. Health agencies would be wise to develop news management strategies, whereby celebrity management agencies could be rapidly assisted with responses to the inevitable "frequently asked questions" that news analysis can catalogue.

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## COMPETING INTERESTS

None identified.

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