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Chapter

Surgery for Breast Cancer

Infocus – access and flows

2013

Queensland Health

Queensland Cancer Control
Safety and Quality Partnership



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Introduction

In 2013 an estimated 3,170 new cases of invasive breast cancer will be diagnosed among women living in Queensland¹. With the ageing population, the number of new cases is expected to reach 3,980 by 2021¹.

Breast cancer is one of five chapters in the *Cancer Surgery in Queensland: Infocus - access and flows 2013* series and should be read in conjunction with the background document, available at <https://qccat.health.qld.gov.au>.

Surgery is a critical component of the curative treatment of breast cancer. This chapter is focused on two dimensions of access to cancer care services – surgery rates and patient flows. It provides population wide information on rates of surgery provision and flows based on patient Hospital and Health Service (HHS) of residence. The chapter contains information on breast cancer surgery in Queensland from 2001 – 2010 and reflections on the trends in the data observed over the most recent three year time period 2008 – 2010.

For the first time, a population profile for breast cancer surgery in Queensland and the HHSs is described including the characteristics of breast cancer patients who receive surgery. Importantly, it provides information on the number and demographic characteristics of breast cancer patients who do not receive surgery and where they live according to HHS of residence.

The baseline information provided in this chapter will inform the planning and funding of cancer services, provide HHSs with locally meaningful information and contribute to our understanding of variation in breast cancer surgery across Queensland. This information enables Queensland to compare themselves with other Australian states and territories, internationally and published literature.

This chapter is framed around five important questions relevant to cancer surgery in Queensland.

1. How many Queenslanders who are newly diagnosed with breast cancer have a surgical procedure as a result of their diagnosis?
2. What are the characteristics of Queenslanders who have a surgical procedure as a result of their breast cancer diagnosis and those that do not have a surgical procedure?
3. What types of surgery are performed for patients who are diagnosed with breast cancer?
4. What number of surgeries is performed by HHS for Queenslanders newly diagnosed with breast cancer?
5. Where do patients receive their surgery?

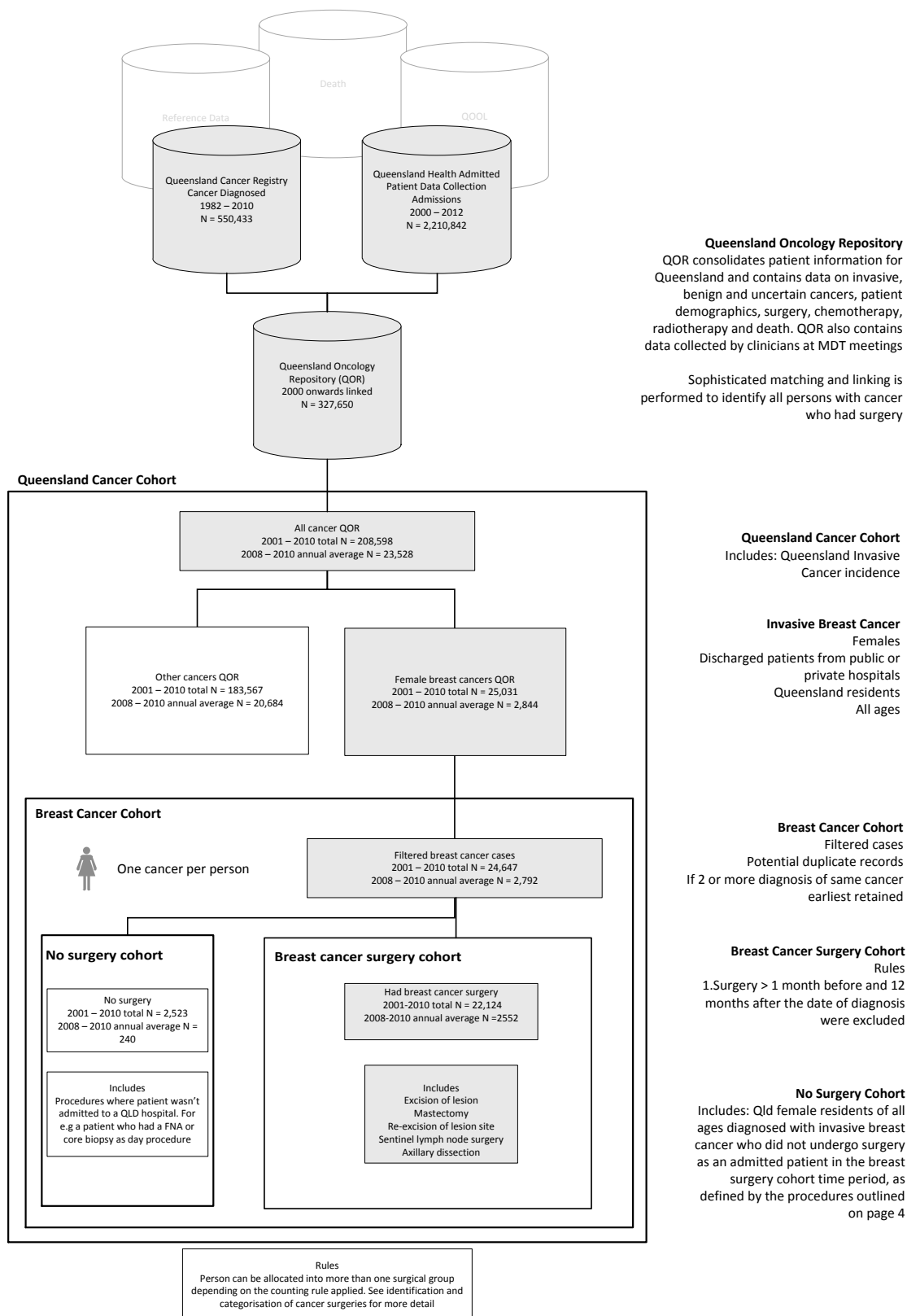
Data sources and methods

Key to QCCAT's program of work is our ability to link population based cancer information on an individual patient basis, using a master linkage key specifically developed by our team. This matched and linked data is housed in the Queensland Oncology Repository (QOR), a resource managed by QCCAT. This centralised repository, QOR, compiles and collates data from a range of source systems including Queensland Cancer Registry, hospital admissions data, death data, treatment systems, public and private pathology, hospital clinical data systems and QOOL. QOR contains approximately 32 million records between 1982 – 2013. Our matching and linking processes provide the 327, 650 matched and linked records of cancer patients between 2000 – 2010, which are the starting point for this analysis. This chapter is structured around four cohorts of patients: **Queensland Cancer Cohort**; **Breast Cancer Cohort**; **Breast Cancer Surgery Cohort** and the **No Surgery Cohort**.

¹ Queensland Health. *Oncology Analysis System (OASys)*. Queensland Cancer Control Analysis Team: Brisbane; 2013.
<https://qool.health.qld.gov.au/OASys>. Accessed 18/07/2013

How the cohorts were identified

2001 – 2010 AND 2008 – 2010 ANNUAL AVERAGE



Time periods

Time period - 01 December 2000 to 31 December 2011

Diagnosis year - 01 January 2001 to 31 December 2010

Cancer definitions - the site and morphology of the cancers have been coded according to the International Classification of Diseases for Oncology, 3rd edition (ICD-O-3).

| Site | ICD-O-3 | Morphology |
|--------|---------|---------------------|
| Breast | C50 | All (invasive only) |

Exclusions

The following exclusions apply:

- Non Queensland residents
- Males diagnosed with breast cancer
- People who were not admitted to a Queensland hospital for a procedure for invasive breast cancer
- Other conditions that patients may have had similar surgery for e.g. fibroma of breast

Identification and categorisation of cancer related procedures

Surgical procedures relevant to breast cancer performed one month prior to and within twelve months of the date of diagnosis were included. The following process was used to assign surgical procedures to patients with cancer:

- Potential cancer related procedures were identified for breast cancer from the Australian Classification of Health Interventions (ACHI) International Classification of Diseases (ICD-10-AM) 7th Edition, 2010
- Procedures were reviewed by expert clinicians for completeness and accuracy
- The following procedures were selected and categorised into groups referred to as excision of lesion, mastectomy, re-excision of lesion site, sentinel lymph node surgery and axillary dissection (see definitions for further explanation)

Number of breast cancer ICD-10-AM 7th edition coded procedures

| ICD-10-AM | PROCEDURE/GROUPING | NUMBER OF PROCEDURES | | |
|-----------|--|----------------------|-----------------------------|------|
| | | 2001-2010 | Annual average 2008-2010 | 2010 |
| | EXCISION OF LESION | 15966 | 1723 | 1752 |
| 3153600 | Complete excision of lesion without guidewire | 10073 | 1071 | 1263 |
| 3150000 | Complete excision of lesion with guidewire | 5893 | 653 | 489 |
| | MASTECTOMY | 9519 | 1163 | 1173 |
| 3151800 | Total mastectomy (unilateral) | 8641 | 1006 | 990 |
| 3151801 | Total mastectomy (bilateral) | 689 | 120 | 148 |
| 3152400 | Subcutaneous mastectomy (unilateral) | 144 | 26 | 23 |
| 3152401 | Subcutaneous mastectomy (bilateral) | 45 | 12 | 12 |
| | RE-EXCISION OF LESION SITE | 2505 | 378 | 373 |
| 3151500 | Re-excision of lesion site | 2505 | 378 | 373 |
| | SENTINEL LYMPH NODE BIOPSY | 5230 | 1412 | 1747 |
| 3033200 | Excision of single axillary lymph node | 1439 | 148 | 120 |
| 3030000 | Excision of sentinel lymph node(s) in level I, II or III of axilla | 3791 | 1264 | 1627 |
| | AXILLARY DISSECTION | 17114 | 1560 | 1395 |
| 3033600 | Level I of excision of lymph nodes of axilla | 10323 | 1079 | 1065 |
| 3033500 | Level II or III excision of lymph nodes of axilla | 6791 | 482 | 330 |

Surgery rate for breast cancer

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 – 2010

EVER HAD
MUTUALLY
EXCLUSIVE

| Characteristic | Annual average | | | Had surgery | | | No surgery | | |
|------------------------------|----------------------|---------|-----------------------|-------------|---------|-----------------------|------------|---------|-----------------------|
| | Breast cancer cohort | (Qld %) | Median tumour size mm | n | (row %) | Median tumour size mm | n | (row %) | Median tumour size mm |
| Queensland | 2792 | (100%) | 17mm | 2552 | (91%) | 16mm | 240 | (9%) | 19mm |
| Age Group | | | | | | | | | |
| 0-29 | 13 | (0%) | 17mm | 13 | (100%) | 17mm | | | |
| 30-39 | 145 | (5%) | 21mm | 138 | (95%) | 21mm | 8 | (6%) | 20mm |
| 40-49 | 507 | (18%) | 18mm | 483 | (95%) | 18mm | 24 | (5%) | 14mm |
| 50-59 | 705 | (25%) | 16mm | 671 | (95%) | 16mm | 38 | (5%) | 15mm |
| 60-69 | 744 | (27%) | 15mm | 708 | (95%) | 15mm | 36 | (5%) | 20mm |
| 70-79 | 409 | (15%) | 15mm | 368 | (90%) | 15mm | 41 | (10%) | 15mm |
| 80+ | 264 | (9%) | 24mm | 170 | (64%) | 24mm | 94 | (36%) | 33mm |
| T Stage (7th Edition) | | | | | | | | | |
| T1mi | 23 | (1%) | | 22 | (96%) | | 1 | (4%) | |
| T1a | 159 | (6%) | | 157 | (99%) | | 3 | (2%) | |
| T1b | 468 | (17%) | | 463 | (99%) | | 4 | (1%) | |
| T1c | 929 | (33%) | | 921 | (99%) | | 8 | (1%) | |
| T2 | 774 | (28%) | | 765 | (99%) | | 9 | (1%) | |
| T3 | 154 | (6%) | | 149 | (97%) | | 5 | (3%) | |
| Unknown | 285 | (10%) | | 75 | (26%) | | 210 | (74%) | |
| Indigenous Status | | | | | | | | | |
| Indigenous | 32 | (1%) | 22mm | 28 | (88%) | 22mm | 4 | (13%) | 15mm |
| Non-Indigenous | 2479 | (89%) | 17mm | 2311 | (93%) | 17mm | 169 | (7%) | 18mm |
| Not Stated/Unknown | 280 | (10%) | 15mm | 213 | (76%) | 15mm | 67 | (24%) | 25mm |
| Socioeconomic Status | | | | | | | | | |
| Affluent | 489 | (18%) | 15mm | 457 | (93%) | 15mm | 32 | (7%) | 8mm |
| Middle | 1996 | (71%) | 17mm | 1825 | (91%) | 17mm | 171 | (9%) | 21mm |
| Disadvantaged | 294 | (11%) | 18mm | 267 | (91%) | 18mm | 27 | (9%) | 15mm |
| Unknown | 13 | (0%) | 10mm | 2 | (15%) | 10mm | 10 | (77%) | |

In the interest of completeness, Annual average numbers have been included with fewer than 16 cases. Numbers < 16 should be interpreted with caution due to the poor reliability of calculations based on small numbers. Annual average numbers have been rounded up to the nearest whole number for those with less than one, therefore the totals may not add up.

Surgery rate for breast cancer

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 – 2010

EVER HAD
MUTUALLY
EXCLUSIVE

| Characteristic | Annual average | | | Had surgery | | | No surgery | | |
|---------------------------|----------------------|---------|-----------------------|-------------|---------|-----------------------|------------|---------|-----------------------|
| | Breast cancer cohort | (Qld %) | Median tumour size mm | n | (row %) | Median tumour size mm | n | (row %) | Median tumour size mm |
| Queensland | 2792 | (100%) | 17mm | 2552 | (91%) | 16mm | 240 | (9%) | 19mm |
| Remoteness | | | | | | | | | |
| Major City | 1440 | (52%) | 16mm | 1328 | (92%) | 16mm | 112 | (8%) | 21mm |
| Inner Regional | 875 | (31%) | 16mm | 813 | (93%) | 16mm | 62 | (7%) | 15mm |
| Outer Regional | 421 | (15%) | 17mm | 372 | (88%) | 17mm | 49 | (12%) | 16mm |
| Remote & Very Remote | 43 | (2%) | 20mm | 36 | (84%) | 20mm | 7 | (16%) | 21mm |
| Qld Unknown | 13 | (0%) | 10mm | 2 | (15%) | 10mm | 10 | (77%) | |
| Diagnosis Basis | | | | | | | | | |
| Histological | 2741 | (98%) | 17mm | 2550 | (93%) | 16mm | 191 | (7%) | 19mm |
| Clinical Only | 29 | (1%) | | 2 | (7%) | | 27 | (93%) | |
| Death Certificate Only | 19 | (1%) | | | | | 19 | (100%) | |
| Other | 3 | (0%) | | | | | 3 | (100%) | 30mm |
| Multifocal | | | | | | | | | |
| | 161 | (6%) | 16mm | 148 | (92%) | 15mm | 13 | (8%) | 35mm |
| Histological type | | | | | | | | | |
| Invasive ductal carcinoma | 2068 | (74%) | 16mm | 1942 | (94%) | 16mm | 126 | (6%) | 19mm |
| Lobular carcinoma | 404 | (14%) | 21mm | 377 | (93%) | 22mm | 27 | (7%) | 14mm |
| Other | 320 | (11%) | 15mm | 233 | (73%) | 15mm | 87 | (27%) | 34mm |

In the interest of completeness, Annual average numbers have been included with fewer than 16 cases. Numbers < 16 should be interpreted with caution due to the poor reliability of calculations based on small numbers. Annual average numbers have been rounded up to the nearest whole number for those with less than one, therefore the totals may not add up.

Surgery rate for breast cancer

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 – 2010

EVER HAD
MUTUALLY
EXCLUSIVE

7

Breast

| | Annual average | | | Had surgery | | | No surgery | | |
|----------------------------------|----------------------|---------|-----------------------|-------------|---------|-----------------------|------------|---------|-----------------------|
| | Breast cancer cohort | (Qld %) | Median tumour size mm | n | (row %) | Median tumour size mm | n | (row %) | Median tumour size mm |
| Queensland | 2792 | (100%) | 17mm | 2552 | (91%) | 16mm | 240 | (9%) | 19mm |
| HHS (patient residence) | | | | | | | | | |
| Metro South | 601 | (22%) | 17mm | 555 | (92%) | 17mm | 46 | (8%) | 10mm |
| Metro North | 569 | (20%) | 16mm | 521 | (92%) | 16mm | 47 | (8%) | 10mm |
| Sunshine Coast | 302 | (11%) | 16mm | 278 | (92%) | 16mm | 24 | (8%) | 30mm |
| Gold Coast | 321 | (11%) | 17mm | 295 | (92%) | 17mm | 26 | (8%) | 26mm |
| Wide Bay | 162 | (6%) | 18mm | 155 | (96%) | 18mm | 8 | (5%) | 25mm |
| Darling Downs | 184 | (7%) | 16mm | 169 | (92%) | 16mm | 15 | (8%) | 15mm |
| Cairns and Hinterland | 148 | (5%) | 16mm | 125 | (84%) | 16mm | 23 | (16%) | 14mm |
| West Moreton | 131 | (5%) | 29mm | 126 | (96%) | 19mm | 6 | (5%) | 12mm |
| Townsville | 121 | (4%) | 18mm | 109 | (90%) | 18mm | 12 | (10%) | 22mm |
| Central Queensland | 121 | (4%) | 16mm | 112 | (93%) | 16mm | 9 | (7%) | 25mm |
| Mackay | 84 | (3%) | 18mm | 75 | (89%) | 18mm | 9 | (11%) | 12mm |
| Central West | 8 | (0%) | 25mm | 7 | (88%) | 25mm | 1 | (13%) | |
| South West | 11 | (0%) | 18mm | 11 | (100%) | 18mm | | | |
| Cape York | 4 | (0%) | 35mm | 4 | (100%) | 38mm | | | |
| North West | 8 | (0%) | 14mm | 6 | (75%) | 14mm | 2 | (25%) | 17mm |
| Torres Strait-Northern Peninsula | 2 | (0%) | 28mm | 1 | (50%) | | 1 | (50%) | |
| Qld Unknown | 13 | (0%) | 10mm | 2 | (15%) | 10mm | 10 | (77%) | |

In the interest of completeness, Annual average numbers have been included with fewer than 16 cases. Numbers < 16 should be interpreted with caution due to the poor reliability of calculations based on small numbers. Annual average numbers have been rounded up to the nearest whole number for those with less than one. For example if a HHS performed one surgery from 2008 - 2010 the Annual average will be rounded up to one to reflect that this HHS is performing surgery. Therefore the totals may not add up.

Type of definitive surgery for breast cancer

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 – 2010

DEFINITIVE
SURGERY
MUTUALLY
EXCLUSIVE

| Characteristic | Annual average | | | | | | | Breast conservation | | | | Mastectomy | | | |
|------------------------------|----------------------|---------|-----------------------|------------------|--------|-----------------------|------|---------------------|---------|-----------------------|------|------------|---------|-----------------------|------|
| | Breast cancer cohort | (Qld %) | Median tumour size mm | Had surgery n | (col%) | Median tumour size mm | T1 % | n | (row %) | Median tumour size mm | T1 % | n | (row %) | Median tumour size mm | T1 % |
| Queensland | 2792 | (100%) | 17mm | 2552 | (91%) | 16mm | 61% | 1420 | (56%) | 15mm | 75% | 1132 | (44%) | 22mm | 44% |
| Age Group | | | | | | | | | | | | | | | |
| 0-29 | 13 | (0%) | 17mm | 13 | (1%) | 15mm | 54% | 5 | (38%) | 15mm | 80% | 8 | (62%) | 25mm | 38% |
| 30-39 | 145 | (5%) | 21mm | 138 | (5%) | 24mm | 47% | 61 | (44%) | 20mm | 57% | 77 | (56%) | 25mm | 38% |
| 40-49 | 507 | (18%) | 18mm | 483 | (19%) | 20mm | 57% | 253 | (52%) | 15mm | 72% | 231 | (48%) | 25mm | 40% |
| 50-59 | 705 | (25%) | 16mm | 671 | (26%) | 16mm | 63% | 410 | (61%) | 14mm | 75% | 261 | (39%) | 23mm | 43% |
| 60-69 | 744 | (27%) | 15mm | 708 | (28%) | 15mm | 70% | 435 | (61%) | 13mm | 80% | 273 | (39%) | 20mm | 54% |
| 70-79 | 409 | (15%) | 15mm | 368 | (14%) | 16mm | 64% | 191 | (52%) | 13mm | 78% | 178 | (48%) | 20mm | 48% |
| 80+ | 264 | (9%) | 24mm | 170 | (7%) | 24mm | 39% | 65 | (38%) | 20mm | 56% | 105 | (62%) | 27mm | 29% |
| T Stage (7th Edition) | | | | | | | | | | | | | | | |
| T1mi | 23 | (1%) | | 22 | (1%) | | | 12 | (55%) | | | 10 | (45%) | | |
| T1a | 159 | (6%) | | 157 | (6%) | | | 102 | (65%) | | | 54 | (34%) | | |
| T1b | 468 | (17%) | | 463 | (18%) | | | 336 | (73%) | | | 128 | (28%) | | |
| T1c | 929 | (33%) | | 921 | (36%) | | | 610 | (66%) | | | 311 | (34%) | | |
| T2 | 774 | (28%) | | 765 | (30%) | | | 317 | (41%) | | | 448 | (59%) | | |
| T3 | 154 | (6%) | | 149 | (6%) | | | 14 | (9%) | | | 136 | (91%) | | |
| Unknown | 285 | (10%) | | 75 | (3%) | | | 29 | (39%) | | | 46 | (61%) | | |
| Indigenous Status | | | | | | | | | | | | | | | |
| Indigenous | 32 | (1%) | 22mm | 28 | (1%) | 20mm | 45% | 12 | (43%) | 16mm | 62% | 16 | (57%) | 30mm | 32% |
| Non-Indigenous | 2479 | (89%) | 17mm | 2311 | (91%) | 17mm | 61% | 1271 | (55%) | 15mm | 74% | 1040 | (45%) | 22mm | 45% |
| Not Stated/Unknown | 280 | (10%) | 15mm | 213 | (8%) | 15mm | 65% | 136 | (64%) | 12mm | 79% | 77 | (36%) | 24mm | 40% |
| Socioeconomic Status | | | | | | | | | | | | | | | |
| Affluent | 489 | (18%) | 15mm | 457 | (18%) | 15mm | 62% | 290 | (63%) | 14mm | 74% | 167 | (37%) | 24mm | 42% |
| Middle | 1996 | (71%) | 17mm | 1825 | (72%) | 17mm | 61% | 997 | (55%) | 15mm | 75% | 828 | (45%) | 22mm | 45% |
| Disadvantaged | 294 | (11%) | 18mm | 267 | (10%) | 20mm | 59% | 131 | (49%) | 15mm | 77% | 136 | (51%) | 23mm | 42% |
| Unknown | 13 | (0%) | 10mm | 2 | (0%) | 8mm | 71% | 2 | (100%) | 10mm | 60% | 1 | (50%) | 13mm | |

In the interest of completeness, Annual average numbers have been included with fewer than 16 cases. Numbers < 16 should be interpreted with caution due to the poor reliability of calculations based on small numbers. Annual average numbers have been rounded up to the nearest whole number for those with less than one, therefore the totals may not add up.

Type of definitive surgery for breast cancer

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 – 2010

DEFINITIVE
SURGERY
MUTUALLY
EXCLUSIVE

| Characteristic | Annual average | | | | | | | Breast conservation | | | | Mastectomy | | | |
|---------------------------|----------------------|---------|-----------------------|---------------|---------|-----------------------|------|---------------------|---------|-----------------------|------|------------|---------|-----------------------|------|
| | Breast cancer cohort | (Qld %) | Median tumour size mm | Had surgery n | (col %) | Median tumour size mm | T1 % | n | (row %) | Median tumour size mm | T1 % | n | (row %) | Median tumour size mm | T1 % |
| Queensland | 2792 | (100%) | 17mm | 2552 | (91%) | 16mm | 61% | 1420 | (56%) | 15mm | 75% | 1132 | (44%) | 22mm | 44% |
| Remoteness | | | | | | | | | | | | | | | |
| Major City | 1440 | (52%) | 16mm | 1328 | (52%) | 17mm | 61% | 810 | (61%) | 15mm | 74% | 518 | (39%) | 25mm | 41% |
| Inner Regional | 875 | (31%) | 16mm | 813 | (32%) | 16mm | 63% | 404 | (50%) | 14mm | 76% | 409 | (50%) | 20mm | 49% |
| Outer Regional | 421 | (15%) | 17mm | 372 | (15%) | 16mm | 60% | 193 | (52%) | 14mm | 75% | 180 | (48%) | 23mm | 44% |
| Remote & Very Remote | 43 | (2%) | 20mm | 36 | (1%) | 20mm | 49% | 11 | (31%) | 14mm | 68% | 25 | (69%) | 22mm | 41% |
| Qld Unknown | 13 | (0%) | 10mm | 2 | (0%) | 8mm | 71% | 2 | (100%) | 10mm | 60% | 1 | (50%) | 13mm | |
| Multifocal | | | | | | | | | | | | | | | |
| | 161 | (6%) | 16mm | 148 | (6%) | 15mm | 61% | 55 | (37%) | 13mm | 76% | 94 | (64%) | 20mm | 52% |
| Histological type | | | | | | | | | | | | | | | |
| Invasive ductal carcinoma | 2068 | (74%) | 16mm | 1942 | (76%) | 16mm | 49% | 1118 | (58%) | 15mm | 60% | 824 | (42%) | 21mm | 35% |
| Lobular carcinoma | 404 | (14%) | 21mm | 377 | (15%) | 22mm | 7% | 170 | (45%) | 15mm | 8% | 207 | (55%) | 30mm | 6% |
| Other | 320 | (11%) | 15mm | 233 | (9%) | 16mm | 5% | 132 | (57%) | 12mm | 7% | 101 | (43%) | 23mm | 4% |

In the interest of completeness, Annual average numbers have been included with fewer than 16 cases. Numbers < 16 should be interpreted with caution due to the poor reliability of calculations based on small numbers. Annual average numbers have been rounded up to the nearest whole number for those with less than one, therefore the totals may not add up.

Type of definitive surgery for breast cancer

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 – 2010

DEFINITIVE
SURGERY
MUTUALLY
EXCLUSIVE

| | Annual average | | | | | | | Breast conservation | | | | Mastectomy | | | |
|----------------------------------|----------------------|---------|-----------------------|-------------|---------|-----------------------|------|---------------------|---------|-----------------------|------|------------|---------|-----------------------|------|
| | Breast cancer cohort | (Qld %) | Median tumour size mm | Had surgery | (% QLD) | Median tumour size mm | T1 % | n | (row %) | Median tumour size mm | T1 % | n | (row %) | Median tumour size mm | T1 % |
| | | | | n | | | | | | | | | | | |
| Queensland | 2792 | (100%) | 17mm | 2552 | (91%) | 16mm | 61% | 1420 | (56%) | 15mm | 75% | 1132 | (44%) | 22mm | 44% |
| HHS (patient residence) | | | | | | | | | | | | | | | |
| Metro South | 601 | (22%) | 17mm | 555 | (22%) | 18mm | 61% | 381 | (69%) | 15mm | 70% | 174 | (31%) | 24mm | 41% |
| Metro North | 569 | (20%) | 16mm | 521 | (20%) | 17mm | 62% | 286 | (55%) | 14mm | 77% | 236 | (45%) | 23mm | 44% |
| Sunshine Coast | 302 | (11%) | 16mm | 278 | (11%) | 15mm | 64% | 163 | (59%) | 14mm | 77% | 114 | (41%) | 21mm | 47% |
| Gold Coast | 321 | (11%) | 17mm | 295 | (12%) | 18mm | 62% | 166 | (56%) | 14mm | 80% | 129 | (44%) | 25mm | 39% |
| Wide Bay | 162 | (6%) | 18mm | 155 | (6%) | 20mm | 58% | 67 | (43%) | 13mm | 75% | 87 | (56%) | 21mm | 45% |
| Darling Downs | 184 | (7%) | 16mm | 169 | (7%) | 16mm | 65% | 77 | (46%) | 14mm | 78% | 92 | (54%) | 20mm | 54% |
| Cairns and Hinterland | 148 | (5%) | 16mm | 125 | (5%) | 15mm | 63% | 63 | (50%) | 15mm | 77% | 63 | (50%) | 20mm | 48% |
| West Moreton | 131 | (5%) | 29mm | 126 | (5%) | 20mm | 56% | 67 | (53%) | 15mm | 71% | 58 | (46%) | 19mm | 39% |
| Townsville | 121 | (4%) | 18mm | 109 | (4%) | 19mm | 60% | 57 | (52%) | 14mm | 78% | 52 | (48%) | 25mm | 39% |
| Central Queensland | 121 | (4%) | 16mm | 112 | (4%) | 16mm | 57% | 38 | (34%) | 15mm | 70% | 74 | (66%) | 24mm | 50% |
| Mackay | 84 | (3%) | 18mm | 75 | (3%) | 15mm | 61% | 43 | (57%) | 14mm | 71% | 32 | (43%) | 19mm | 48% |
| Central West | 8 | (0%) | 25mm | 7 | (0%) | 28mm | 27% | 2 | (29%) | 37mm | | 6 | (86%) | 21mm | 35% |
| South West | 11 | (0%) | 18mm | 11 | (0%) | 15mm | 59% | 3 | (27%) | 9mm | 78% | 8 | (73%) | 20mm | 52% |
| Cape York | 4 | (0%) | 35mm | 4 | (0%) | 38mm | 9% | 1 | (25%) | 40mm | 33% | 3 | (75%) | 35mm | |
| North West | 8 | (0%) | 14mm | 6 | (0%) | 15mm | 79% | 3 | (50%) | 12mm | 100% | 3 | (50%) | 16mm | 56% |
| Torres Strait-Northern Peninsula | 2 | (0%) | 28mm | 1 | (0%) | 28mm | 33% | 1 | (100%) | 12mm | 100% | | | | |
| Qld Unknown | 13 | (0%) | 10mm | 2 | (0%) | 8mm | 71% | 2 | (100%) | 10mm | 60% | | | | |

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Characteristics of breast cancer patients receiving breast conservation

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 – 2010

DEFINITIVE BREAST
CONSERVATION

Characteristic

| | Had surgery | | Median age at diagnosis | Disadvantaged | | Indigenous | | Private | | Median tumour size | Lobular histological type | | Multifocal | | % T1 | |
|----------------------------------|-------------|---------|-------------------------|---------------|---------|------------|---------|---------|---------|--------------------|---------------------------|---------|------------|---------|------|---------|
| | n | (Qld %) | yrs | n | (row %) | n | (row %) | n | (row %) | mm | n | (row %) | n | (row %) | n | (row %) |
| Queensland | 1420 | (56%) | 59yrs | 131 | (9%) | 12 | (1%) | 217 | (15%) | 15mm | 170 | (12%) | 55 | (4%) | 1060 | (75%) |
| HHS (patient residence) | | | | | | | | | | | | | | | | |
| Metro South | 381 | (27%) | 58yrs | 32 | (8%) | 2 | (1%) | 217 | (57%) | 15mm | 50 | (13%) | 18 | (5%) | 265 | (70%) |
| Metro North | 286 | (20%) | 59yrs | 11 | (4%) | 1 | (0%) | 198 | (69%) | 14mm | 41 | (14%) | 13 | (5%) | 220 | (77%) |
| Sunshine Coast | 163 | (11%) | 61yrs | 9 | (6%) | 1 | (1%) | 114 | (70%) | 14mm | 22 | (13%) | 8 | (5%) | 125 | (77%) |
| Gold Coast | 166 | (12%) | 60yrs | | | 1 | (1%) | 113 | (68%) | 14mm | 16 | (10%) | 4 | (2%) | 134 | (81%) |
| Wide Bay | 67 | (5%) | 59yrs | 39 | (58%) | 1 | (1%) | 37 | (55%) | 13mm | 6 | (9%) | 1 | (1%) | 51 | (76%) |
| Darling Downs | 77 | (5%) | 60yrs | 16 | (21%) | 1 | (1%) | 54 | (70%) | 14mm | 9 | (12%) | 5 | (6%) | 60 | (78%) |
| Cairns and Hinterland | 63 | (4%) | 59yrs | 9 | (14%) | 3 | (5%) | 39 | (62%) | 15mm | 5 | (8%) | 1 | (2%) | 48 | (76%) |
| West Moreton | 67 | (5%) | 60yrs | 3 | (4%) | | | 36 | (54%) | 15mm | 8 | (12%) | 1 | (1%) | 48 | (72%) |
| Townsville | 57 | (4%) | 60yrs | 7 | (12%) | 2 | (4%) | 36 | (63%) | 14mm | 6 | (11%) | 1 | (2%) | 45 | (79%) |
| Central Queensland | 38 | (3%) | 56yrs | 2 | (5%) | 1 | (3%) | 27 | (71%) | 15mm | 4 | (11%) | 1 | (3%) | 27 | (71%) |
| Mackay | 43 | (3%) | 57yrs | 2 | (5%) | 1 | (2%) | 26 | (60%) | 12mm | 3 | (7%) | 1 | (2%) | 30 | (70%) |
| Central West | 2 | (0%) | 40yrs | 1 | (50%) | | | 1 | (50%) | 37mm | | | | | | |
| South West | 3 | (0%) | 49yrs | 1 | (33%) | | | 2 | (67%) | 9mm | | | 1 | (33%) | 2 | (67%) |
| Cape York | 1 | (0%) | 66yrs | | (0%) | | | 1 | (100%) | 40mm | 1 | (100%) | | | 1 | (100%) |
| North West | 3 | (0%) | 60yrs | 1 | (33%) | 1 | (33%) | 2 | (67%) | 12mm | | | 1 | (33%) | 3 | (100%) |
| Torres Strait-Northern Peninsula | 1 | (0%) | 63yrs | 1 | (100%) | 1 | (100%) | | | 12mm | | | | | 1 | (100%) |
| Qld Unknown | 2 | (0%) | 68yrs | | | | | 1 | (50%) | 10mm | | | | | 1 | (50%) |

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DEFINITIVE
MASTECTOMY

Characteristics of breast cancer patients receiving a mastectomy

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 – 2010

| | Had surgery | | Median age at diagnosis yrs | Disadvantaged | | Indigenous | | Private | | Median tumour size mm | Lobular histological type | | Multifocal | | % T1 | |
|----------------------------------|-------------|---------|--------------------------------|---------------|---------|------------|---------|---------|---------|--------------------------|---------------------------|---------|------------|---------|------|---------|
| | n | (Qld %) | | n | (row %) | n | (row %) | n | (row %) | | n | (row %) | n | (row %) | n | (row %) |
| Queensland | 1132 | (44%) | 59 yrs | 136 | (12%) | 16 | (1%) | 604 | (53%) | 22mm | 207 | (18%) | 94 | (8%) | 503 | (44%) |
| HHS (patient residence) | | | | | | | | | | | | | | | | |
| Metro South | 174 | (15%) | 56 yrs | 21 | (12%) | 1 | (1%) | 84 | (48%) | 24mm | 36 | (21%) | 13 | (7%) | 72 | (41%) |
| Metro North | 236 | (21%) | 59 yrs | 13 | (6%) | 1 | (0%) | 133 | (56%) | 23mm | 47 | (20%) | 20 | (8%) | 103 | (44%) |
| Sunshine Coast | 114 | (10%) | 60 yrs | 7 | (6%) | 1 | (1%) | 65 | (57%) | 21mm | 27 | (24%) | 11 | (10%) | 53 | (46%) |
| Gold Coast | 129 | (11%) | 59 yrs | | | 1 | (1%) | 70 | (54%) | 25mm | 22 | (17%) | 12 | (9%) | 51 | (40%) |
| Wide Bay | 87 | (8%) | 64 yrs | 45 | (52%) | 1 | (1%) | 42 | (48%) | 21mm | 18 | (21%) | 6 | (7%) | 40 | (46%) |
| Darling Downs | 92 | (8%) | 63 yrs | 18 | (20%) | 1 | (1%) | 54 | (59%) | 20mm | 13 | (14%) | 10 | (11%) | 50 | (54%) |
| Cairns and Hinterland | 63 | (6%) | 56 yrs | 7 | (11%) | 3 | (5%) | 26 | (41%) | 20mm | 10 | (16%) | 5 | (8%) | 30 | (48%) |
| West Moreton | 58 | (5%) | 60 yrs | 5 | (9%) | 1 | (2%) | 28 | (48%) | 19mm | 10 | (17%) | 5 | (9%) | 23 | (40%) |
| Townsville | 52 | (5%) | 56 yrs | 9 | (17%) | 2 | (4%) | 27 | (52%) | 25mm | 6 | (12%) | 4 | (8%) | | |
| Central Queensland | 74 | (7%) | 59 yrs | 3 | (4%) | 1 | (1%) | 46 | (62%) | 24mm | 12 | (16%) | 6 | (8%) | 37 | (50%) |
| Mackay | 32 | (3%) | 59 yrs | 4 | (13%) | 1 | (3%) | 17 | (53%) | 19mm | 5 | (16%) | 1 | (3%) | 16 | (50%) |
| Central West | 6 | (1%) | 55 yrs | 2 | (33%) | | | 3 | (50%) | 21mm | 1 | (17%) | 1 | (17%) | 2 | (33%) |
| South West | 8 | (1%) | 62 yrs | 2 | (25%) | 1 | (13%) | 6 | (75%) | 20mm | 1 | (13%) | | | 4 | (50%) |
| Cape York | 3 | (0%) | 44 yrs | 2 | (67%) | 2 | (67%) | 1 | (33%) | 35mm | | | | | | |
| North West | 3 | (0%) | 56 yrs | | | 1 | (33%) | 1 | (33%) | 16mm | 1 | (33%) | 1 | (33%) | 2 | (67%) |
| Torres Strait-Northern Peninsula | 1 | (0%) | 44 yrs | 1 | (100%) | 1 | (100%) | | | 57mm | 1 | (100%) | | | | |
| Qld Unknown | 1 | (0%) | 50 yrs | | | | | | | 13mm | | | 1 | (100%) | 1 | (100%) |

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Type of surgeries for breast cancer

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 - 2010

EVER HAD
NOT MUTUALLY
EXCLUSIVE

| Characteristic | Annual average Breast cancer cohort | (Q/d %) | Median tumour size mm | Had surgery n (col%) | Median tumour size mm | T1 % | Excision of lesion n (row %) | Mastectomy n (row %) | Re-excision of lesion site n (row %) | Sentinel LN biopsy n (row %) | Axillary dissection n (row %) |
|------------------------------|--|---------|--------------------------|-------------------------|--------------------------|---------|---------------------------------|-------------------------|---|---------------------------------|----------------------------------|
| Queensland | 2792 | (100%) | 17mm | 2552 (91%) | 16mm | 61% | 1676 (66%) | 1132 (44%) | 357 (14%) | 1350 (53%) | 1461 (57%) |
| Age Group | | | | | | | | | | | |
| 0-29 | 13 | (0%) | 17mm | 13 (1%) | 15mm | 54% | 9 (69%) | 8 (62%) | 1 (8%) | 8 (62%) | 7 (54%) |
| 30-39 | 145 | (5%) | 21mm | 138 (5%) | 24mm | 47% | 82 (59%) | 77 (56%) | 23 (17%) | 64 (46%) | 98 (71%) |
| 40-49 | 507 | (18%) | 18mm | 483 (19%) | 20mm | 57% | 315 (65%) | 231 (48%) | 82 (17%) | 258 (53%) | 304 (63%) |
| 50-59 | 709 | (25%) | 16mm | 671 (26%) | 16mm | 63% | 478 (71%) | 261 (39%) | 101 (15%) | 379 (56%) | 382 (57%) |
| 60-69 | 744 | (27%) | 15mm | 708 (28%) | 15mm | 70% | 494 (70%) | 273 (39%) | 105 (15%) | 396 (56%) | 386 (55%) |
| 70-79 | 409 | (15%) | 15mm | 368 (14%) | 16mm | 64% | 224 (61%) | 178 (48%) | 37 (10%) | 193 (52%) | 193 (52%) |
| 80+ | 264 | (9%) | 24mm | 170 (7%) | 24mm | 39% | 74 (44%) | 105 (62%) | 9 (5%) | 52 (31%) | 91 (54%) |
| T Stage (7th Edition) | | | | | | | | | | | |
| T1mi | 23 | (1%) | | 22 (1%) | | | 15 (68%) | 10 (45%) | 5 (23%) | 15 (68%) | 6 (27%) |
| T1a | 159 | (6%) | | 157 (6%) | | | 124 (79%) | 54 (34%) | 35 (22%) | 102 (65%) | 55 (35%) |
| T1b | 468 | (17%) | | 463 (18%) | | | 384 (83%) | 128 (28%) | 76 (16%) | 304 (66%) | 186 (40%) |
| T1c | 929 | (33%) | | 921 (36%) | | | 678 (74%) | 311 (34%) | 128 (14%) | 530 (58%) | 502 (55%) |
| T2 | 774 | (28%) | | 765 (30%) | | | 398 (52%) | 448 (59%) | 100 (13%) | 335 (44%) | 547 (72%) |
| T3 | 154 | (6%) | | 149 (6%) | | | 39 (26%) | 136 (91%) | 8 (5%) | 37 (25%) | 124 (83%) |
| Unknown | 285 | (10%) | | 75 (3%) | | | 38 (51%) | 46 (61%) | 5 (7%) | 27 (36%) | 41 (55%) |
| Indigenous Status | | | | | | | | | | | |
| Indigenous | 32 | (1%) | 22mm | 28 (1%) | 20mm | 45% | 14 (50%) | 16 (57%) | 3 (11%) | 11 (39%) | 18 (64%) |
| Non-Indigenous | 2479 | (89%) | 17mm | 2311 (91%) | 17mm | 61% | 1510 (65%) | 1040 (45%) | 324 (14%) | 1223 (53%) | 1335 (58%) |
| Not Stated/Unknown | 280 | (10%) | 15mm | 213 (8%) | 15mm | 65% | 152 (71%) | 77 (36%) | 30 (14%) | 116 (54%) | 107 (50%) |
| Socioeconomic Status | | | | | | | | | | | |
| Affluent | 489 | (18%) | 15mm | 457 (18%) | 15mm | 62% | 335 (73%) | 167 (37%) | 71 (16%) | 266 (58%) | 261 (57%) |
| Middle | 1996 | (71%) | 17mm | 1825 (72%) | 17mm | 61% | 1175 (64%) | 828 (45%) | 250 (14%) | 964 (53%) | 1025 (56%) |
| Disadvantaged | 294 | (11%) | 18mm | 267 (10%) | 20mm | 59% | 165 (62%) | 136 (51%) | 36 (13%) | 119 (45%) | 174 (65%) |
| Unknown | 13 | (0%) | 10mm | 2 (0%) | 8mm | 71% | 2 (100%) | 1 (50%) | 1 (50%) | 2 (100%) | 1 (50%) |
| Remoteness | | | | | | | | | | | |
| Major City | 1440 | (52%) | 16mm | 1328 (52%) | 17mm | 61% | 939 (71%) | 518 (39%) | 206 (16%) | 746 (56%) | 755 (57%) |
| Inner Regional | 875 | (31%) | 16mm | 813 (32%) | 16mm | 63% | 493 (61%) | 409 (50%) | 108 (13%) | 401 (49%) | 485 (60%) |
| Outer Regional | 421 | (15%) | 17mm | 372 (15%) | 16mm | 60% | 226 (61%) | 180 (48%) | 40 (11%) | 187 (50%) | 197 (53%) |
| Remote & Very Remote | 43 | (2%) | 20mm | 36 (1%) | 20mm | 49% | 17 (47%) | 25 (69%) | 3 (8%) | 14 (39%) | 24 (67%) |
| Qld Unknown | 13 | (0%) | 10mm | 2 (0%) | 8mm | 71% | 2 (100%) | 1 (50%) | 1 (50%) | 2 (100%) | 1 (50%) |
| Multifocal | | | | | | | | | | | |
| | 161 | (6%) | 16mm | 148 (6%) | 15mm | 61% | 75 (51%) | 94 (64%) | 21 (14%) | 89 (60%) | 87 (59%) |
| Histological type | | | | | | | | | | | |
| Invasive ductal carcinoma | 2068 | (74%) | 16mm | 1942 (76%) | 16mm | 49% | 1293 (67%) | 824 (42%) | 262 (13%) | 1034 (53%) | 1125 (58%) |
| Lobular carcinoma | 404 | (14%) | 21mm | 377 (15%) | 22mm | 7% | 224 (59%) | 207 (55%) | 59 (16%) | 199 (53%) | 229 (61%) |
| Other | 320 | (11%) | 15mm | 233 (9%) | 16mm | 5% | 159 (68%) | 101 (43%) | 35 (15%) | 117 (50%) | 107 (46%) |

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Type of surgeries for breast cancer

ANNUAL AVERAGE YEAR OF DIAGNOSIS 2008 - 2010

EVER HAD
NOT MUTUALLY
EXCLUSIVE

| | Annual average Breast cancer cohort | (Qld %) | Median tumour size mm | Had surgery n | (col%) | Median tumour size mm | T1 % | Excision of lesion n | (row %) | Mastectomy n | (row %) | Re-excision of lesion site n | (row %) | Sentinel LN biopsy n | (row %) | Axillary dissection n | (row %) |
|----------------------------------|---|---------|-----------------------------|------------------|--------|-----------------------------|---------|-------------------------|---------|-----------------|---------|---------------------------------|---------|-------------------------|---------|--------------------------|---------|
| Queensland | 2792 | (100%) | 17mm | 2552 | (91%) | 16mm | 61% | 1676 | (66%) | 1132 | (44%) | 357 | (14%) | 1350 | (53%) | 1461 | (57%) |
| HHS (patient residence) | | | | | | | | | | | | | | | | | |
| Metro South | 601 | (22%) | 17mm | 555 | (22%) | 18mm | 61% | 435 | (78%) | 174 | (31%) | 113 | (20%) | 312 | (56%) | 317 | (57%) |
| Metro North | 569 | (20%) | 16mm | 521 | (20%) | 17mm | 62% | 344 | (66%) | 236 | (45%) | 70 | (13%) | 271 | (52%) | 310 | (60%) |
| Sunshine Coast | 302 | (11%) | 16mm | 278 | (11%) | 15mm | 64% | 192 | (69%) | 114 | (41%) | 45 | (16%) | 158 | (57%) | 139 | (50%) |
| Gold Coast | 321 | (11%) | 17mm | 295 | (12%) | 18mm | 62% | 187 | (63%) | 129 | (44%) | 29 | (10%) | 187 | (63%) | 155 | (53%) |
| Wide Bay | 162 | (6%) | 18mm | 155 | (6%) | 20mm | 58% | 87 | (56%) | 87 | (56%) | 21 | (14%) | 58 | (37%) | 118 | (76%) |
| Darling Downs | 184 | (7%) | 16mm | 169 | (7%) | 16mm | 65% | 95 | (56%) | 92 | (54%) | 15 | (9%) | 89 | (53%) | 90 | (53%) |
| Cairns and Hinterland | 148 | (5%) | 16mm | 125 | (5%) | 15mm | 63% | 71 | (57%) | 63 | (50%) | 7 | (6%) | 45 | (36%) | 73 | (58%) |
| West Moreton | 131 | (5%) | 29mm | 126 | (5%) | 20mm | 56% | 81 | (64%) | 58 | (46%) | 19 | (15%) | 62 | (49%) | 74 | (59%) |
| Townsville | 121 | (4%) | 18mm | 109 | (4%) | 19mm | 60% | 69 | (63%) | 52 | (48%) | 13 | (12%) | 70 | (64%) | 53 | (49%) |
| Central Queensland | 121 | (4%) | 16mm | 112 | (4%) | 16mm | 57% | 51 | (46%) | 74 | (66%) | 8 | (7%) | 39 | (35%) | 82 | (73%) |
| Mackay | 84 | (3%) | 18mm | 75 | (3%) | 15mm | 61% | 52 | (69%) | 32 | (43%) | 13 | (17%) | 45 | (60%) | 30 | (40%) |
| Central West | 8 | (0%) | 25mm | 7 | (0%) | 28mm | 27% | 2 | (29%) | 6 | (86%) | 1 | (14%) | 2 | (29%) | 6 | (86%) |
| South West | 11 | (0%) | 18mm | 11 | (0%) | 15mm | 59% | 4 | (36%) | 8 | (73%) | 1 | (9%) | 6 | (55%) | 5 | (45%) |
| Cape York | 4 | (0%) | 35mm | 4 | (0%) | 38mm | 9% | 1 | (25%) | 3 | (75%) | 1 | (25%) | 1 | (25%) | 3 | (75%) |
| North West | 8 | (0%) | 14mm | 6 | (0%) | 15mm | 79% | 5 | (83%) | 3 | (50%) | 1 | (17%) | 4 | (67%) | 3 | (50%) |
| Torres Strait-Northern Peninsula | 2 | (0%) | 28mm | 1 | (0%) | 28mm | 33% | 1 | (100%) | 1 | (100%) | | | 1 | (100%) | 1 | (100%) |
| Qld Unknown | 13 | (0%) | 10mm | 2 | (0%) | 8mm | 71% | 2 | (100%) | 1 | (50%) | 1 | (50%) | 2 | (100%) | 1 | (50%) |

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Patient flows



10 year breast cancer patient flows for breast conservation

YEAR OF DIAGNOSIS 2001 – 2010 (COL% ROW%)

| Hospitals performing surgery* | HHS of surgery | | | | | | |
|----------------------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|
| | Metro South | Metro North | Sunshine Coast | Gold Coast | Wide Bay | Darling Downs | Cairns & Hinterland |
| HHS (patient residence) | 10 | 13 | 9 | 7 | 8 | 10 | 4 |
| Metro South | 3151 (77% 81%) | 691 (16% 18%) | 2 (0% 0%) | 37 (2% 1%) | | 1 (0% 0%) | |
| Metro North | 422 (10% 13%) | 2824 (66% 86%) | 18 (1% 1%) | 4 (0% 0%) | | 1 (0% 0%) | |
| Sunshine Coast | 41 (1% 3%) | 96 (2% 6%) | 1420 (96% 91%) | 2 (0% 0%) | | 1 (0% 0%) | |
| Gold Coast | 105 (3% 6%) | 77 (2% 4%) | | 1542 (97% 87%) | | 50 (6% 3%) | |
| Wide Bay | 46 (1% 6%) | 167 (4% 23%) | 23 (2% 3%) | | 486 (99% 67%) | | 1 (0% 0%) |
| Darling Downs | 49 (1% 6%) | 98 (2% 12%) | 1 (0% 0%) | | 4 (1% 0%) | 660 (81% 81%) | |
| Cairns and Hinterland | 20 (0% 3%) | 9 (0% 2%) | 5 (0% 1%) | | | | 555 (92% 93%) |
| West Moreton | 170 (4% 22%) | 171 (4% 22%) | 3 (0% 0%) | 1 (0% 0%) | | 52 (6% 7%) | |
| Townsville | 5 (0% 1%) | 7 (0% 1%) | | | | 1 (0% 0%) | 26 (4% 4%) |
| Central Queensland | 59 (1% 12%) | 71 (2% 14%) | 1 (0% 0%) | | 2 (0% 0%) | 7 (1% 1%) | |
| Mackay | 10 (0% 2%) | 25 (1% 6%) | | | | | 1 (0% 0%) |
| Central West | 6 (0% 19%) | 11 (0% 34%) | 1 (0% 3%) | | | 6 (1% 19%) | 1 (0% 3%) |
| South West | 8 (0% 12%) | 14 (0% 20%) | | | 1 (0% 1%) | 39 (5% 57%) | |
| Cape York | | 2 (0% 18%) | | | | | 9 (1% 82%) |
| North West | 3 (0% 4%) | 14 (0% 21%) | 1 (0% 1%) | | | | 5 (1% 7%) |
| Torres Strait-Northern Peninsula | | | | | | | 3 (0% 100%) |
| Qld Unknown | 5 (0% 45%) | 5 (0% 45%) | | | | | 1 (0% 9%) |
| Queensland | 4100 | 4282 | 1475 | 1586 | 493 | 818 | 602 |
| (%) | (27%) | (28%) | (10%) | (11%) | (3%) | (5%) | (4%) |
| Annual Average | 410 | 428 | 148 | 159 | 49 | 82 | 60 |

*the number of hospitals within a HHS performing breast conservation surgery

col% is used to show the distribution of residence for the total group of patients who were operated on by a single HHS. For example: of the 4100 surgeries that Metro South performed, 3151 (77%) patients were also residents of Metro South. The other 949 (23%) patients who received surgery reside in fourteen other HHSs.

10 year breast cancer patient flows for breast conservation

YEAR OF DIAGNOSIS 2001 – 2010 (COL% ROW%)

EVER HAD
1 SURGERY: 1
PATIENT

17

Breast

| HHS of surgery | | | | | | | | |
|--------------------|--------------------|--------------------|--------------------|------------------|------------------|--------------------|-------|--------|
| West Moreton | Townsville | Central QLD | Mackay | Central West | South West | North West | Qld | |
| 2 | 6 | 6 | 4 | 1 | 2 | 1 | 79 | |
| | | | | | | | n | (%) |
| 6 (2% 0%) | | | | | | | 3888 | (26%) |
| 2 (1% 0%) | | | | | | | 3271 | (22%) |
| 2 (1% 0%) | | | | | | | 1562 | (10%) |
| | | | 1 (0% 0%) | | | | 1775 | (12%) |
| | | 7 (2% 1%) | | | | | 730 | (5%) |
| 2 (1% 0%) | | | | | | | 814 | (5%) |
| | 8 (1% 1%) | | | | | | 597 | (4%) |
| 385 (97% 49%) | 1 (0% 0%) | | | | | | 783 | (5%) |
| | 554 (89% 93%) | | | | | | 593 | (4%) |
| | 3 (0% 1%) | 348 (97% 71%) | 2 (1% 0%) | | | | 493 | (3%) |
| | 33 (5% 8%) | 1 (0% 0%) | 335 (99% 83%) | | | | 405 | (3%) |
| | 1 (0% 3%) | 3 (1% 9%) | | 3 (100% 9%) | | | 32 | (0%) |
| 1 (0% 1%) | | 1 (0% 1%) | | | 5 (100% 7%) | | 69 | (0%) |
| | | | | | | | 11 | (0%) |
| | 21 (3% 31%) | | | | | 23 (100% 34%) | 67 | (0%) |
| | | | | | | | 3 | (0%) |
| | | | | | | | 11 | (0%) |
| 398 (3%) | 621 (4%) | 360 (2%) | 338 (2%) | 3 (0%) | 5 (0%) | 23 (0%) | 15104 | |
| 39.8 | 62 | 36 | 34 | 0 | 1 | 2 | 1510 | (100%) |

row% is used to show the proportion of patients residing in a given HHS who also receive their surgery in the same HHS, and what proportion had their surgery in another HHS. For example: of the 3888 residents of Metro South 3151 (81%) also received surgery in Metro South. The other 737 (19%) patients received surgery in five other HHSs.

10 year breast cancer patient flows for mastectomy

YEAR OF DIAGNOSIS 2001 – 2010 (COL% ROW%)

| Hospitals performing surgery* | HHS of surgery | | | | | | |
|----------------------------------|---------------------|---------------------|--------------------|---------------------|--------------------|--------------------|---------------------|
| | Metro South | Metro North | Sunshine Coast | Gold Coast | Wide Bay | Darling Downs | Cairns & Hinterland |
| HHS (patient residence) | 10 | 12 | 9 | 6 | 8 | 10 | 5 |
| Metro South | 1184 (74% 78%) | 293 (12% 19%) | | 26 (2% 2%) | | 2 (0% 0%) | |
| Metro North | 166 (10% 9%) | 1723 (71% 90%) | 13 (2% 1%) | 1 (0% 0%) | 1 (0% 0%) | | 1 (0% 0%) |
| Sunshine Coast | 16 (1% 2%) | 64 (3% 8%) | 733 (97% 90%) | 1 (0% 0%) | 1 (0% 0%) | | |
| Gold Coast | 45 (3% 4%) | 33 (1% 3%) | | 1008 (97% 91%) | | 20 (2% 2%) | |
| Wide Bay | 23 (1% 3%) | 94 (4% 14%) | 6 (1% 1%) | 2 (0% 0%) | 538 (99% 80%) | 1 (0% 0%) | 1 (0% 0%) |
| Darling Downs | 26 (2% 3%) | 47 (2% 6%) | 4 (1% 1%) | 1 (0% 0%) | 4 (1% 1%) | 693 (82% 89%) | |
| Cairns and Hinterland | 6 (0% 1%) | 8 (0% 1%) | | 3 (0% 1%) | | | 522 (93% 96%) |
| West Moreton | 78 (5% 17%) | 87 (4% 19%) | 1 (0% 0%) | 1 (0% 0%) | | 59 (7% 13%) | |
| Townsville | 5 (0% 1%) | 4 (0% 1%) | | | | | 14 (3% 3%) |
| Central Queensland | 21 (1% 4%) | 44 (2% 7%) | 1 (0% 0%) | | 1 (0% 0%) | 6 (1% 1%) | |
| Mackay | 8 (1% 3%) | 16 (1% 6%) | | | | | 1 (0% 0%) |
| Central West | 5 (0% 14%) | 9 (0% 24%) | | | | 9 (1% 24%) | |
| South West | 4 (0% 6%) | 5 (0% 7%) | | | | 51 (6% 76%) | |
| Cape York | | 2 (0% 12%) | | | | | 14 (3% 82%) |
| North West | | 4 (0% 11%) | 1 (0% 3%) | | | | |
| Torres Strait-Northern Peninsula | 2 (0% 25%) | | | | | | 6 (1% 75%) |
| Qld Unknown | 1 (0% 20%) | 1 (0% 20%) | | 1 (0% 20%) | | 2 (0% 40%) | |
| Queensland (%) | 1590 (17%) | 2434 (26%) | 759 (8%) | 1044 (11%) | 545 (6%) | 843 (9%) | 559 (6%) |
| Annual Average | 159 | 243 | 76 | 104 | 55 | 84 | 56 |

*the number of hospitals within a hospital and health service performing mastectomy surgery

col% is used to show the distribution of residence for the total group of patients who were operated on by a single HHS. For example: of the 1590 surgeries that Metro South performed, 1184 (74%) patients were also residents of Metro South. The other 406 (26%) patients who received surgery in Metro South reside in fourteen other HHSs.

10 year breast cancer patient flows for mastectomy

YEAR OF DIAGNOSIS 2001 – 2010 (COL% ROW%)

EVER HAD
1 SURGERY: 1
PATIENT

19

Breast

| HHS of surgery | | | | | | | Qld | |
|--------------------|--------------------|--------------------|---------------------|------------------|-----------------|--------------------|------|--------|
| West Moreton | Townsville | Central QLD | Mackay | Central West | South West | North West | n | (%) |
| 2 | 6 | 6 | 3 | 1 | 2 | 1 | 77 | |
| 5 (2% 0%) | | | | | | | 1510 | (16%) |
| | 1 (0% 0%) | | | | | | 1906 | (20%) |
| 1 (0% 0%) | | | | | | | 816 | (9%) |
| | | | | | | | 1106 | (12%) |
| | | 8 (2% 1%) | | | | | 673 | (7%) |
| 1 (0% 0%) | | | | | 1 (14% 0%) | | 777 | (8%) |
| | 7 (1% 1%) | | | | | | 546 | (6%) |
| 221 (97% 49%) | | | | | | | 447 | (5%) |
| | 462 (87% 95%) | | | | | | 485 | (5%) |
| | 3 (1% 1%) | 512 (96% 87%) | | | | | 588 | (6%) |
| | 33 (6% 12%) | 2 (0% 1%) | 226 (100% 79%) | | | | 286 | (3%) |
| | 2 (0% 5%) | 9 (2% 24%) | 1 (0% 3%) | 2 (100% 5%) | | | 37 | (0%) |
| 1 (0% 1%) | | | | | 6 (86% 9%) | | 67 | (1%) |
| | 1 (0% 6%) | | | | | | 17 | (0%) |
| | 21 (4% 57%) | | | | | 11 (100% 30%) | 37 | (0%) |
| | | | | | | | 8 | (0%) |
| | | | | | | | 5 | (0%) |
| 229 (2%) | 530 (6%) | 531 (6%) | 227 (2%) | 2 (0%) | 7 (0%) | 11 (0%) | 9311 | (100%) |
| 23 | 53 | 53 | 23 | 0 | 1 | 1 | 931 | |

row% is used to show the proportion of patients residing in a given HHS who also receive their surgery in the same HHS, and what proportion had their surgery in another HHS. For example: of the 1510 residents of Metro South 1184 (78%) also received surgery in Metro South. The other 326 (22%) patients who received surgery reside in four other HHSs.

2010 breast cancer patient flows for breast conservation

YEAR OF DIAGNOSIS 2010 (COL% ROW%)

| Hospitals performing surgery* | HHS of surgery | | | | | |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|
| | Metro South | Metro North | Sunshine Coast | Gold Coast | Wide Bay | Darling Downs |
| HHS (patient residence) | 8 | 10 | 6 | 4 | 8 | 4 |
| Metro South | 349 (75% 83%) | 60 (14% 14%) | | 7 (4% 2%) | | |
| Metro North | 58 (12% 17%) | 275 (65% 82%) | 2 (1% 1%) | 1 (1% 0%) | | 1 (1% 0%) |
| Sunshine Coast | 6 (1% 3%) | 11 (3% 5%) | 200 (96% 92%) | | | 1 (1% 0%) |
| Gold Coast | 9 (2% 5%) | 3 (1% 2%) | | 174 (95% 93%) | | 1 (1% 1%) |
| Wide Bay | 4 (1% 4%) | 28 (7% 28%) | 4 (2% 4%) | | 63 (98% 63%) | |
| Darling Downs | 5 (1% 5%) | 9 (2% 9%) | | | | 81 (84% 85%) |
| Cairns and Hinterland | 3 (1% 4%) | 1 (0% 1%) | 1 (0% 1%) | | | |
| West Moreton | 21 (5% 25%) | 18 (4% 22%) | 1 (0% 1%) | 1 (1% 1%) | | 6 (6% 7%) |
| Townsville | 1 (0% 1%) | 1 (0% 1%) | | | | |
| Central Queensland | 4 (1% 10%) | 8 (2% 19%) | | | 1 (2% 2%) | |
| Mackay | 1 (0% 2%) | 3 (1% 5%) | | | | |
| Central West | 2 (0% 29%) | 4 (1% 57%) | | | | 1 (1% 14%) |
| South West | | | | | | 5 (5% 100%) |
| Cape York | | | | | | |
| North West | | | | | | |
| Qld Unknown | 2 (0% 67%) | 1 (0% 33%) | | | | |
| Queensland | 465 (27%) | 422 (25%) | 208 (12%) | 183 (11%) | 64 (4%) | 96 (6%) |

*the number of hospitals within a hospital and health service performing breast conservation surgery

Col% is used to show the distribution of residence for the total group of patients who were operated on by a single HHS. For example: of the 465 surgeries that Metro South performed, 349 (75%) patients were also residents of Metro South. The other 116 (25%) patients who received surgery reside in twelve other HHSs.

2010 breast cancer patient flows for breast conservation

YEAR OF DIAGNOSIS 2010 (COL% ROW%)

EVER HAD
1 SURGERY: 1
PATIENT

21

Breast

| HHS of surgery | | | | | | Qld | |
|---------------------|-------------------|-------------------|-------------------|--------------------|-------------------|------|--------|
| Cairns & Hinterland | West Moreton | Townsville | Central QLD | Mackay | North West | n | (%) |
| 3 | 2 | 2 | 6 | 3 | 1 | 57 | |
| | 2 (5% 0%) | | | | | 418 | (24%) |
| | | | | | | 337 | (20%) |
| | | | | | | 218 | (13%) |
| | | | | | | 187 | (11%) |
| | | | 1 (3% 1%) | | | 100 | (6%) |
| | | | | | | 95 | (6%) |
| 76 (94% 92%) | | 2 (3% 2%) | | | | 83 | (5%) |
| | 36 (95% 43%) | | | | | 83 | (5%) |
| 3 (4% 4%) | | 62 (87% 93%) | | | | 67 | (4%) |
| | | | 29 (94% 69%) | | | 42 | (2%) |
| | | 5 (7% 8%) | 1 (3% 2%) | 52 (100% 84%) | | 62 | (4%) |
| | | | | | | 7 | (0%) |
| | | | | | | 5 | (0%) |
| 2 (2% 100%) | | | | | | 2 | (0%) |
| | | 2 (3% 67%) | | | 1 (100% 33%) | 3 | (0%) |
| | | | | | | 3 | (0%) |
| 81 (5%) | 38 (2%) | 71 (4%) | 31 (2%) | 52 (3%) | 1 (0%) | 1712 | (100%) |

Row% is used to show the proportion of patients residing in a given HHS who also receive their surgery in the same HHS, and what proportion had their surgery in another HHS. For example: of the 418 residents of Metro South 349 (83%) also received surgery in Metro South. The other 69 (17%) patients who received surgery reside in three other HHSs.

2010 breast cancer patient flows for mastectomy

YEAR OF DIAGNOSIS 2010 (COL% ROW%)

| Hospitals performing surgery* | HHS of surgery | | | | | |
|----------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
| | Metro South | Metro North | Sunshine Coast | Gold Coast | Wide Bay | Darling Downs |
| HHS (patient residence) | 7 | 11 | 7 | 4 | 7 | 4 |
| Metro South | 144 (72% 80%) | 33 (11% 18%) | | 2 (2% 1%) | | 1 (1% 1%) |
| Metro North | 23 (12% 10%) | 204 (67% 90%) | | | | |
| Sunshine Coast | 3 (2% 2%) | 8 (3% 7%) | 112 (97% 91%) | | | |
| Gold Coast | 5 (3% 4%) | 4 (1% 3%) | | 106 (96% 92%) | | |
| Wide Bay | 4 (2% 4%) | 17 (6% 16%) | 2 (2% 2%) | | 83 (100% 78%) | |
| Darling Downs | 1 (1% 1%) | 1 (0% 1%) | 1 (1% 1%) | 1 (1% 1%) | | 86 (89% 89%) |
| Cairns and Hinterland | | 1 (0% 2%) | | | | |
| West Moreton | 15 (8% 22%) | 19 (6% 28%) | | 1 (1% 1%) | | 4 (4% 6%) |
| Townsville | 1 (1% 2%) | | | | | |
| Central Queensland | 3 (2% 5%) | 5 (2% 9%) | | | | |
| Mackay | | 2 (1% 6%) | | | | |
| Central West | | 2 (1% 29%) | | | | 2 (2% 29%) |
| South West | | 1 (0% 20%) | | | | 4 (4% 80%) |
| Cape York | | | | | | |
| North West | | | | | | |
| Torres Strait-Northern Peninsula | | | | | | |
| Qld Unknown | | 1 (0% 100%) | | | | |
| Queensland (%) | 199 (17%) | 304 (27%) | 115 (10%) | 110 (10%) | 83 (7%) | 97 (8%) |

*the number of hospitals within a hospital and health service performing mastectomy surgery

Col% is used to show the distribution of residence for the total group of patients who were operated on by a single HHS. For example: of the 199 surgeries that Metro South performed, 144 (72%) patients were also residents of Metro South. The other 55 (28%) patients who received surgery reside in eight other HHSs.

2010 breast cancer patient flows for mastectomy

YEAR OF DIAGNOSIS 2010 (COL% ROW%)

EVER HAD
1 SURGERY: 1
PATIENT

23

Breast

| HHS of surgery | | | | | | | Qld n (%) |
|-----------------------------|----------------------|-------------------|-------------------|--------------------|-------------------|------------------|----------------|
| Cairns & Hinterland 3 | West Moreton 2 | Townsville 2 | Central QLD 5 | Mackay 2 | North West 1 | South West 1 | |
| | 1 (3% 1%) | | | | | | 181 (16%) |
| | | | | | | | 227 (20%) |
| | | | | | | | 123 (11%) |
| | | | | | | | 115 (10%) |
| | | | | | | | 106 (9%) |
| | | | | | | 1 (100% 1%) | 97 (8%) |
| 61 (92% 97%) | | 1 (2% 2%) | | | | | 63 (6%) |
| | 28 (97% 42%) | | | | | | 67 (6%) |
| 1 (2% 2%) | | 51 (85% 96%) | | | | | 53 (5%) |
| | | | 50 (96% 86%) | | | | 58 (5%) |
| | | 4 (7% 12%) | | 28 (100% 82%) | | | 34 (3%) |
| | | 1 (2% 14%) | 2 (4% 29%) | | | | 7 (1%) |
| | | | | | | | 5 (0%) |
| 3 (5% 75%) | | 1 (2% 25%) | | | | | 4 (0%) |
| | | 2 (3% 67%) | | | 1 (100% 33%) | | 3 (0%) |
| 1 (2% 100%) | | | | | | | 1 (0%) |
| | | | | | | | 1 (0%) |
| 66 (6%) | 29 (3%) | 60 (5%) | 52 (5%) | 28 (2%) | 1 (0%) | 1 (0%) | 1145 (100%) |

Row% is used to show the proportion of patients residing in a given HHS who also receive their surgery in the same HHS, and what proportion had their surgery in another HHS. For example: of the 181 residents of Metro South 144 (80%) also received surgery in Metro South. The other 37 (20%) patients who received surgery reside in four other HHSs.

Surgery rates



10 year surgery rate for breast cancer

YEAR OF DIAGNOSIS 2001 - 2010

EVER HAD
1 SURGERY: 1
PATIENT

| | Breast cancer cohort | | | | Had surgery | | Year of diagnosis | | | | | | | | | | | | | | | | | |
|----------------------------------|----------------------|---------|-------|---------|-------------|--------|-------------------|-------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| | | | | | | | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | |
| | N | (col %) | n | (row %) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | | |
| Queensland | 24647 | (100%) | 22124 | (90%) | 1884 | (86%) | 1974 | (89%) | 1958 | (89%) | 2023 | (89%) | 2170 | (90%) | 2238 | (91%) | 2222 | (90%) | 2499 | (91%) | 2552 | (92%) | 2604 | (91%) |
| Median age (yrs) | 59yrs | | 58yrs | | 58yrs | | 58yrs | | 58yrs | | 58yrs | | 58yrs | | 58yrs | | 59yrs | | 58yrs | | 59yrs | | 60yrs | |
| Median tumour size (mm) | 16mm | | 16mm | | 15mm | | 15mm | | 16mm | | 16mm | | 16mm | | 16mm | | 18mm | | 17mm | | 16mm | | 17mm | |
| HHS (patient residence) | | | | | | | | | | | | | | | | | | | | | | | | |
| Metro South | 5488 | (22%) | 4987 | (91%) | 427 | (87%) | 503 | (91%) | 447 | (89%) | 428 | (88%) | 509 | (93%) | 512 | (91%) | 495 | (91%) | 528 | (93%) | 588 | (92%) | 550 | (92%) |
| Metro North | 5083 | (21%) | 4648 | (91%) | 420 | (91%) | 404 | (93%) | 437 | (91%) | 451 | (88%) | 458 | (95%) | 464 | (91%) | 450 | (91%) | 544 | (92%) | 510 | (91%) | 510 | (93%) |
| Sunshine Coast | 2447 | (10%) | 2174 | (89%) | 183 | (85%) | 181 | (88%) | 165 | (83%) | 193 | (89%) | 193 | (81%) | 215 | (93%) | 211 | (89%) | 276 | (94%) | 247 | (91%) | 310 | (91%) |
| Gold Coast | 2988 | (12%) | 2634 | (88%) | 217 | (80%) | 241 | (85%) | 233 | (87%) | 254 | (88%) | 238 | (90%) | 264 | (88%) | 302 | (88%) | 293 | (92%) | 313 | (95%) | 279 | (89%) |
| Wide Bay | 1342 | (5%) | 1233 | (92%) | 95 | (84%) | 108 | (91%) | 102 | (93%) | 120 | (94%) | 109 | (93%) | 124 | (88%) | 111 | (87%) | 149 | (94%) | 134 | (97%) | 181 | (95%) |
| Darling Downs | 1581 | (6%) | 1437 | (91%) | 132 | (90%) | 128 | (92%) | 129 | (88%) | 136 | (91%) | 126 | (89%) | 146 | (90%) | 133 | (93%) | 140 | (88%) | 189 | (94%) | 178 | (93%) |
| Cairns and Hinterland | 1197 | (5%) | 1040 | (87%) | 77 | (84%) | 88 | (87%) | 80 | (84%) | 87 | (95%) | 116 | (89%) | 109 | (88%) | 107 | (91%) | 125 | (83%) | 114 | (86%) | 137 | (85%) |
| West Moreton | 1172 | (5%) | 1108 | (95%) | 110 | (96%) | 93 | (93%) | 101 | (94%) | 99 | (93%) | 113 | (94%) | 95 | (89%) | 120 | (98%) | 110 | (97%) | 131 | (97%) | 136 | (93%) |
| Townsville | 1080 | (4%) | 966 | (89%) | 92 | (89%) | 80 | (91%) | 89 | (93%) | 76 | (92%) | 94 | (84%) | 105 | (87%) | 102 | (90%) | 115 | (91%) | 103 | (90%) | 110 | (89%) |
| Central Queensland | 1080 | (4%) | 961 | (89%) | 58 | (66%) | 74 | (82%) | 79 | (94%) | 103 | (90%) | 110 | (90%) | 93 | (92%) | 108 | (92%) | 115 | (93%) | 128 | (92%) | 93 | (93%) |
| Mackay | 722 | (3%) | 618 | (86%) | 39 | (75%) | 55 | (81%) | 56 | (85%) | 56 | (82%) | 63 | (83%) | 82 | (85%) | 42 | (93%) | 78 | (87%) | 64 | (93%) | 83 | (90%) |
| Central West | 64 | (0%) | 58 | (91%) | 6 | (100%) | 5 | (71%) | 4 | (100%) | 1 | (100%) | 7 | (100%) | 3 | (75%) | 10 | (100%) | 4 | (67%) | 6 | (86%) | 12 | (100%) |
| South West | 126 | (1%) | 118 | (94%) | 12 | (92%) | 9 | (82%) | 16 | (100%) | 11 | (92%) | 15 | (100%) | 10 | (83%) | 13 | (100%) | 13 | (93%) | 10 | (91%) | 9 | (100%) |
| Cape York | 29 | (0%) | 24 | (83%) | 2 | (100%) | | | 4 | (100%) | 2 | (100%) | 2 | (100%) | 2 | (100%) | 1 | (50%) | 4 | (100%) | 1 | (100%) | 6 | (75%) |
| North West | 101 | (0%) | 91 | (90%) | 12 | (100%) | 2 | (50%) | 16 | (100%) | 2 | (67%) | 15 | (100%) | 12 | (92%) | 13 | (100%) | 2 | (33%) | 12 | (100%) | 5 | (71%) |
| Torres Strait-Northern Peninsula | 16 | (0%) | 11 | (69%) | | | 2 | (67%) | | | 2 | (100%) | 2 | (67%) | 1 | (50%) | 1 | (100%) | | | 2 | (67%) | 1 | (100%) |
| Qld Unknown | 131 | (1%) | 16 | (12%) | 2 | (11%) | 1 | (7%) | | | 2 | (13%) | 0 | | 1 | (6%) | | | | | | | | |

Surgery rates for a single year are calculated as a % total of the breast cancer cohort for that year.

10 year surgery rate definitive breast conservation

YEAR OF DIAGNOSIS 2001 - 2010

DEFINITIVE
1 SURGERY: 1
PATIENT

| | Breast cancer cohort | | | | Had surgery | | Year of diagnosis | | | | | | | | | | | | | | | | | |
|----------------------------------|----------------------|---------|-------|---------|-------------|--------|-------------------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | |
| | N | (col %) | n | (row %) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | | |
| Queensland | 22124 | (100%) | 12813 | (58%) | 1115 | (59%) | 1151 | (58%) | 1154 | (59%) | 1212 | (60%) | 1281 | (59%) | 1352 | (60%) | 1289 | (58%) | 1402 | (56%) | 1398 | (55%) | 1459 | (56%) |
| Median age (yrs) | 58yrs | | 58yrs | | 58yrs | | 57yrs | | 57yrs | | 57yrs | | 58yrs | | 58yrs | | 58yrs | | 58yrs | | 59yrs | | 60yrs | |
| Median tumour size (mm) | 16mm | | 14mm | | 13mm | | 13mm | | 13mm | | 14mm | | 15mm | | 14mm | | 15mm | | 15mm | | 14mm | | 14mm | |
| HHS (patient residence) | | | | | | | | | | | | | | | | | | | | | | | | |
| Metro South | 4987 | (23%) | 3477 | (70%) | 300 | (70%) | 350 | (70%) | 315 | (70%) | 303 | (71%) | 360 | (71%) | 360 | (71%) | 346 | (70%) | 365 | (69%) | 409 | (70%) | 369 | (67%) |
| Metro North | 4648 | (21%) | 2742 | (59%) | 254 | (60%) | 247 | (61%) | 266 | (61%) | 283 | (63%) | 284 | (62%) | 293 | (64%) | 258 | (57%) | 311 | (57%) | 263 | (52%) | 283 | (55%) |
| Sunshine Coast | 2174 | (10%) | 1358 | (62%) | 113 | (62%) | 111 | (61%) | 114 | (69%) | 135 | (70%) | 125 | (65%) | 134 | (69%) | 136 | (64%) | 159 | (58%) | 144 | (58%) | 187 | (60%) |
| Gold Coast | 2634 | (12%) | 1528 | (58%) | 130 | (60%) | 145 | (60%) | 127 | (55%) | 132 | (52%) | 149 | (63%) | 161 | (68%) | 185 | (61%) | 166 | (57%) | 169 | (54%) | 164 | (59%) |
| Wide Bay | 1233 | (6%) | 560 | (45%) | 43 | (45%) | 43 | (40%) | 47 | (46%) | 57 | (48%) | 50 | (46%) | 73 | (67%) | 45 | (41%) | 72 | (48%) | 55 | (41%) | 75 | (41%) |
| Darling Downs | 1437 | (6%) | 660 | (46%) | 49 | (37%) | 48 | (38%) | 55 | (43%) | 69 | (51%) | 65 | (52%) | 71 | (56%) | 72 | (54%) | 61 | (44%) | 89 | (47%) | 81 | (46%) |
| Cairns and Hinterland | 1040 | (5%) | 494 | (48%) | 30 | (39%) | 38 | (43%) | 35 | (44%) | 41 | (47%) | 51 | (44%) | 58 | (50%) | 53 | (50%) | 64 | (51%) | 50 | (44%) | 74 | (54%) |
| West Moreton | 1108 | (5%) | 661 | (60%) | 77 | (70%) | 60 | (65%) | 71 | (70%) | 68 | (69%) | 68 | (60%) | 48 | (42%) | 67 | (56%) | 57 | (52%) | 76 | (58%) | 69 | (51%) |
| Townsville | 966 | (4%) | 481 | (50%) | 52 | (57%) | 43 | (54%) | 40 | (53%) | 40 | (53%) | 40 | (43%) | 49 | (47%) | 46 | (45%) | 58 | (50%) | 56 | (54%) | 57 | (52%) |
| Central Queensland | 961 | (4%) | 373 | (39%) | 22 | (38%) | 27 | (36%) | 35 | (39%) | 43 | (42%) | 48 | (44%) | 46 | (42%) | 37 | (34%) | 40 | (35%) | 56 | (44%) | 35 | (38%) |
| Mackay | 618 | (3%) | 332 | (54%) | 25 | (64%) | 28 | (51%) | 29 | (52%) | 32 | (57%) | 26 | (41%) | 40 | (63%) | 24 | (57%) | 43 | (55%) | 36 | (56%) | 49 | (59%) |
| Central West | 58 | (0%) | 21 | (36%) | 3 | (50%) | 2 | (40%) | 3 | (75%) | 1 | (100%) | 1 | (14%) | 2 | (29%) | 4 | (40%) | | | | | 5 | (42%) |
| South West | 118 | (1%) | 51 | (43%) | 5 | (42%) | 5 | (56%) | 8 | (50%) | 4 | (36%) | 7 | (47%) | 6 | (40%) | 7 | (54%) | 3 | (23%) | 2 | (20%) | 4 | (44%) |
| Cape York | 24 | (0%) | 7 | (29%) | 1 | (50%) | | | 1 | (25%) | 1 | (50%) | 1 | (50%) | | | | | 1 | (25%) | | | 2 | (33%) |
| North West | 91 | (0%) | 54 | (59%) | 9 | (75%) | 2 | (100%) | 8 | (50%) | 2 | (100%) | 6 | (40%) | 10 | (67%) | 7 | (54%) | | | 8 | (67%) | 2 | (40%) |
| Torres Strait-Northern Peninsula | 11 | (0%) | 3 | (27%) | | | 1 | (50%) | | | 1 | (50%) | | | | | | | | 1 | (50%) | | | |
| Qld Unknown | 16 | (0%) | 11 | (69%) | 2 | (100%) | 1 | (100%) | | | | | | | 1 | (100%) | 2 | (67%) | 2 | (67%) | | | 3 | (75%) |

Surgery rates for a single year are calculated as a % total of the breast cancer surgery cohort for that year.

10 year surgery rate for definitive mastectomy

YEAR OF DIAGNOSIS 2001 - 2010

DEFINITIVE
1 SURGERY: 1
PATIENT

| | Breast cancer cohort | | | | Year of diagnosis | | | | | | | | | | | | | | | | | | | |
|----------------------------------|----------------------|---------|-------|---------|-------------------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| | | | | | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | | 2010 | |
| | N | (col %) | n | (row %) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | | |
| Queensland | 22124 | (100%) | 9311 | (42%) | 769 | (41%) | 823 | (42%) | 804 | (41%) | 811 | (40%) | 889 | (41%) | 886 | (40%) | 933 | (42%) | 1097 | (44%) | 1154 | (45%) | 1145 | (44%) |
| Median age (yrs) | 58yrs | | 59yrs | | 58yrs | | 58yrs | | 59yrs | | 58yrs | | 57yrs | | 59yrs | | 59yrs | | 59yrs | | 59yrs | | 59yrs | |
| Median tumour size (mm) | 16mm | | 22mm | | 20mm | | 21mm | | 21mm | | 21mm | | 22mm | | 22mm | | 24mm | | 22mm | | 22mm | | 23mm | |
| HHS (patient residence) | | | | | | | | | | | | | | | | | | | | | | | | |
| Metro South | 4987 | (23%) | 1510 | (30%) | 127 | (30%) | 153 | (30%) | 132 | (30%) | 125 | (29%) | 149 | (29%) | 152 | (30%) | 149 | (30%) | 163 | (31%) | 179 | (30%) | 181 | (33%) |
| Metro North | 4648 | (21%) | 1906 | (41%) | 166 | (40%) | 157 | (39%) | 171 | (39%) | 168 | (37%) | 174 | (38%) | 171 | (37%) | 192 | (43%) | 233 | (43%) | 247 | (48%) | 227 | (45%) |
| Sunshine Coast | 2174 | (10%) | 816 | (38%) | 70 | (38%) | 70 | (39%) | 51 | (31%) | 58 | (30%) | 68 | (35%) | 81 | (38%) | 75 | (36%) | 117 | (42%) | 103 | (42%) | 123 | (40%) |
| Gold Coast | 2634 | (12%) | 1106 | (42%) | 87 | (40%) | 96 | (40%) | 106 | (45%) | 122 | (48%) | 89 | (37%) | 103 | (39%) | 117 | (39%) | 127 | (43%) | 144 | (46%) | 115 | (41%) |
| Wide Bay | 1233 | (6%) | 673 | (55%) | 52 | (55%) | 65 | (60%) | 55 | (54%) | 63 | (53%) | 59 | (54%) | 51 | (41%) | 66 | (59%) | 77 | (52%) | 79 | (59%) | 106 | (59%) |
| Darling Downs | 1437 | (6%) | 777 | (54%) | 83 | (63%) | 80 | (63%) | 74 | (57%) | 67 | (49%) | 61 | (48%) | 75 | (51%) | 61 | (46%) | 79 | (56%) | 100 | (53%) | 97 | (54%) |
| Cairns and Hinterland | 1040 | (5%) | 546 | (53%) | 47 | (61%) | 50 | (57%) | 45 | (56%) | 46 | (53%) | 65 | (56%) | 51 | (47%) | 54 | (50%) | 61 | (49%) | 64 | (56%) | 63 | (46%) |
| West Moreton | 1108 | (5%) | 447 | (40%) | 33 | (30%) | 33 | (35%) | 30 | (30%) | 31 | (31%) | 45 | (40%) | 47 | (49%) | 53 | (44%) | 53 | (48%) | 55 | (42%) | 67 | (49%) |
| Townsville | 966 | (4%) | 485 | (50%) | 40 | (43%) | 37 | (46%) | 49 | (55%) | 54 | (71%) | 54 | (57%) | 56 | (53%) | 57 | (56%) | 56 | (49%) | 47 | (8%) | 53 | (48%) |
| Central Queensland | 961 | (4%) | 588 | (61%) | 36 | (62%) | 47 | (64%) | 44 | (56%) | 36 | (35%) | 62 | (56%) | 47 | (51%) | 56 | (52%) | 57 | (50%) | 88 | (69%) | 58 | (62%) |
| Mackay | 618 | (3%) | 286 | (46%) | 14 | (36%) | 27 | (49%) | 27 | (48%) | 24 | (43%) | 37 | (59%) | 42 | (51%) | 18 | (43%) | 35 | (45%) | 28 | (44%) | 34 | (41%) |
| Central West | 58 | (0%) | 37 | (64%) | 3 | (50%) | 3 | (60%) | 1 | (25%) | 0 | (0%) | 6 | (86%) | 1 | (33%) | 6 | (60%) | 4 | (100%) | 6 | (100%) | 7 | (58%) |
| South West | 118 | (1%) | 67 | (57%) | 7 | (58%) | 4 | (44%) | 8 | (50%) | 7 | (64%) | 8 | (53%) | 4 | (40%) | 6 | (46%) | 10 | (77%) | 8 | (80%) | 5 | (56%) |
| Cape York | 24 | (0%) | 17 | (71%) | 1 | (50%) | | | 3 | (75%) | 1 | (50%) | 1 | (50%) | 2 | (100%) | 1 | (100%) | 3 | (75%) | 1 | (100%) | 4 | (67%) |
| North West | 91 | (0%) | 37 | (41%) | 3 | (25%) | | | 8 | (50%) | | | 9 | (60%) | 2 | (17%) | 6 | (46%) | 2 | (100%) | 4 | (33%) | 3 | (60%) |
| Torres Strait-Northern Peninsula | 11 | (0%) | 8 | (73%) | | | 1 | (50%) | | | 1 | (50%) | 2 | (100%) | 1 | (100%) | 1 | (100%) | | | 1 | (50%) | 1 | (100%) |
| Qld Unknown | 16 | (0%) | 5 | (31%) | | | | | | | 2 | (100%) | | | | | 1 | (33%) | 1 | (33%) | | | 1 | (25%) |

Surgery rates for a single year are calculated as a % total of the breast cancer surgery cohort for that year.

10 year surgery rate for breast conservation

YEAR OF DIAGNOSIS 2001 - 2010

EVER HAD
1 SURGERY: 1
PATIENT

| | Breast cancer cohort | | | | Year of diagnosis | | | | | | | | | | | | | | | | | | | |
|----------------------------------|----------------------|---------|-------------|---------|-------------------|--------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|--------|-------|-------|
| | N | | Had surgery | | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | | 2010 | |
| | | (col %) | n | (row %) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) |
| Queensland | 22124 | (100%) | 15104 | (68%) | 1325 | (70%) | 1377 | (70%) | 1349 | (69%) | 1434 | (71%) | 1501 | (69%) | 1564 | (70%) | 1525 | (69%) | 1664 | (67%) | 1653 | (65%) | 1712 | (66%) |
| Median age (yrs) | 58yrs | | 59yrs | | 59yrs | | 58yrs | | 58yrs | | 58yrs | | 58yrs | | 59yrs | | 59yrs | | 59yrs | | 60yrs | | 60yrs | |
| Median tumour size (mm) | 16mm | | 16mm | | 16mm | | 15mm | | 16mm | | 16mm | | 16mm | | 16mm | | 18mm | | 17mm | | 16mm | | 17mm | |
| HHS (patient residence) | | | | | | | | | | | | | | | | | | | | | | | | |
| Metro South | 4987 | (23%) | 3888 | (78%) | 329 | (77%) | 391 | (78%) | 344 | (77%) | 341 | (80%) | 397 | (78%) | 398 | (78%) | 384 | (78%) | 417 | (79%) | 469 | (80%) | 418 | (76%) |
| Metro North | 4648 | (21%) | 3271 | (70%) | 311 | (74%) | 297 | (74%) | 318 | (73%) | 329 | (73%) | 335 | (73%) | 340 | (73%) | 309 | (69%) | 378 | (69%) | 317 | (62%) | 337 | (66%) |
| Sunshine Coast | 2174 | (10%) | 1562 | (72%) | 138 | (75%) | 129 | (71%) | 126 | (76%) | 152 | (79%) | 138 | (72%) | 151 | (70%) | 152 | (72%) | 189 | (68%) | 169 | (68%) | 218 | (70%) |
| Gold Coast | 2634 | (12%) | 1775 | (67%) | 153 | (71%) | 167 | (69%) | 153 | (66%) | 169 | (67%) | 168 | (71%) | 182 | (69%) | 222 | (74%) | 186 | (63%) | 188 | (60%) | 187 | (67%) |
| Wide Bay | 1233 | (6%) | 730 | (59%) | 50 | (53%) | 68 | (63%) | 63 | (62%) | 75 | (63%) | 68 | (62%) | 83 | (67%) | 63 | (57%) | 87 | (58%) | 73 | (54%) | 100 | (55%) |
| Darling Downs | 1437 | (6%) | 814 | (57%) | 63 | (48%) | 69 | (54%) | 67 | (52%) | 85 | (63%) | 76 | (60%) | 86 | (59%) | 84 | (63%) | 78 | (56%) | 111 | (59%) | 95 | (53%) |
| Cairns and Hinterland | 1040 | (5%) | 597 | (57%) | 48 | (62%) | 49 | (56%) | 41 | (51%) | 51 | (59%) | 66 | (57%) | 68 | (62%) | 62 | (58%) | 71 | (57%) | 58 | (51%) | 83 | (61%) |
| West Moreton | 1108 | (5%) | 783 | (71%) | 86 | (78%) | 71 | (76%) | 80 | (79%) | 78 | (79%) | 81 | (72%) | 64 | (67%) | 81 | (68%) | 72 | (65%) | 87 | (66%) | 83 | (61%) |
| Townsville | 966 | (4%) | 593 | (61%) | 65 | (71%) | 47 | (59%) | 51 | (12%) | 49 | (64%) | 55 | (59%) | 58 | (55%) | 58 | (57%) | 71 | (62%) | 68 | (66%) | 67 | (61%) |
| Central Queensland | 961 | (4%) | 493 | (51%) | 31 | (53%) | 40 | (54%) | 42 | (53%) | 56 | (54%) | 60 | (55%) | 61 | (66%) | 62 | (57%) | 55 | (48%) | 56 | (44%) | 42 | (45%) |
| Mackay | 618 | (3%) | 405 | (66%) | 28 | (72%) | 35 | (64%) | 38 | (68%) | 37 | (66%) | 32 | (51%) | 50 | (61%) | 30 | (71%) | 51 | (65%) | 42 | (66%) | 62 | (75%) |
| Central West | 58 | (0%) | 32 | (55%) | 4 | (67%) | 4 | (80%) | 3 | (75%) | 1 | (100%) | 4 | (57%) | 3 | (100%) | 6 | (60%) | | | | | 7 | (58%) |
| South West | 118 | (1%) | 69 | (58%) | 5 | (42%) | 6 | (67%) | 10 | (63%) | 6 | (55%) | 12 | (80%) | 7 | (70%) | 10 | (77%) | 4 | (31%) | 4 | (40%) | 5 | (56%) |
| Cape York | 24 | (0%) | 11 | (46%) | 1 | (50%) | | | 3 | (75%) | 2 | (100%) | 1 | (50%) | | | | | 1 | (25%) | 1 | (100%) | 2 | (33%) |
| North West | 91 | (0%) | 67 | (74%) | 11 | (92%) | 2 | (100%) | 10 | (63%) | 2 | (100%) | 8 | (53%) | 12 | (100%) | 8 | (62%) | 2 | (100%) | 9 | (75%) | 3 | (60%) |
| Torres Strait-Northern Peninsula | 11 | (0%) | 3 | (27%) | | | 1 | (50%) | | | 1 | (50%) | | (0%) | | | | | | 1 | (50%) | | | |
| Qld Unknown | 16 | (0%) | 11 | (69%) | 2 | (100%) | 1 | (100%) | | | | | | | 1 | (100%) | 2 | (67%) | 2 | (67%) | | | 3 | (75%) |

Surgery rates for a single year are calculated as a % total of the breast cancer surgery cohort for that year.

10 year surgery rate for mastectomy

YEAR OF DIAGNOSIS 2001 - 2010

EVER HAD
NOT MUTUALLY
EXCLUSIVE

| | Breast cancer cohort | | Had surgery | | Year of diagnosis | | | | | | | | | | | | | | | | | | | |
|----------------------------------|----------------------|---------|-------------|---------|-------------------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| | N | (col %) | n | (row %) | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | | 2010 | |
| | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) |
| Queensland | 22124 | (100%) | 9311 | (42%) | 769 | (41%) | 823 | (42%) | 804 | (41%) | 811 | (40%) | 889 | (41%) | 886 | (40%) | 933 | (42%) | 1097 | (44%) | 1154 | (45%) | 1145 | (44%) |
| Median age (yrs) | 58yrs | | 59yrs | | 58yrs | | 58yrs | | 59yrs | | 58yrs | | 57yrs | | 59yrs | | 59yrs | | 59yrs | | 59yrs | | 59yrs | |
| Median tumour size (mm) | 16mm | | 22mm | | 20mm | | 21mm | | 21mm | | 21mm | | 22mm | | 22mm | | 24mm | | 22mm | | 22mm | | 23mm | |
| HHS (patient residence) | | | | | | | | | | | | | | | | | | | | | | | | |
| Metro South | 4987 | (23%) | 1510 | (30%) | 127 | (30%) | 153 | (30%) | 132 | (30%) | 125 | (29%) | 149 | (29%) | 152 | (30%) | 149 | (30%) | 163 | (31%) | 179 | (30%) | 181 | (33%) |
| Metro North | 4648 | (21%) | 1906 | (41%) | 166 | (40%) | 157 | (39%) | 171 | (39%) | 168 | (37%) | 174 | (38%) | 171 | (37%) | 192 | (43%) | 233 | (43%) | 247 | (48%) | 227 | (45%) |
| Sunshine Coast | 2174 | (10%) | 816 | (38%) | 70 | (38%) | 70 | (39%) | 51 | (31%) | 58 | (30%) | 68 | (35%) | 81 | (38%) | 75 | (36%) | 117 | (42%) | 103 | (42%) | 123 | (40%) |
| Gold Coast | 2634 | (12%) | 1106 | (42%) | 87 | (40%) | 96 | (40%) | 106 | (45%) | 122 | (48%) | 89 | (37%) | 103 | (39%) | 117 | (39%) | 127 | (43%) | 144 | (46%) | 115 | (41%) |
| Wide Bay | 1233 | (6%) | 673 | (55%) | 52 | (55%) | 65 | (60%) | 55 | (54%) | 63 | (53%) | 59 | (54%) | 51 | (41%) | 66 | (59%) | 77 | (52%) | 79 | (59%) | 106 | (59%) |
| Darling Downs | 1437 | (6%) | 777 | (54%) | 83 | (63%) | 80 | (63%) | 74 | (57%) | 67 | (49%) | 61 | (48%) | 75 | (51%) | 61 | (46%) | 79 | (56%) | 100 | (53%) | 97 | (54%) |
| Cairns and Hinterland | 1040 | (5%) | 546 | (53%) | 47 | (61%) | 50 | (57%) | 45 | (56%) | 46 | (53%) | 65 | (56%) | 51 | (47%) | 54 | (50%) | 61 | (49%) | 64 | (56%) | 63 | (46%) |
| West Moreton | 1108 | (5%) | 447 | (40%) | 33 | (30%) | 33 | (35%) | 30 | (30%) | 31 | (31%) | 45 | (40%) | 47 | (49%) | 53 | (44%) | 53 | (48%) | 55 | (42%) | 67 | (49%) |
| Townsville | 966 | (4%) | 485 | (50%) | 40 | (43%) | 37 | (46%) | 49 | (55%) | 54 | (71%) | 54 | (57%) | 56 | (53%) | 57 | (56%) | 56 | (49%) | 47 | (8%) | 53 | (48%) |
| Central Queensland | 961 | (4%) | 588 | (61%) | 36 | (62%) | 47 | (64%) | 44 | (56%) | 36 | (35%) | 62 | (56%) | 47 | (51%) | 56 | (52%) | 57 | (50%) | 88 | (69%) | 58 | (62%) |
| Mackay | 618 | (3%) | 286 | (46%) | 14 | (36%) | 27 | (49%) | 27 | (48%) | 24 | (43%) | 37 | (59%) | 42 | (51%) | 18 | (43%) | 35 | (45%) | 28 | (44%) | 34 | (41%) |
| Central West | 58 | (0%) | 37 | (64%) | 3 | (50%) | 3 | (60%) | 1 | (25%) | 0 | (0%) | 6 | (86%) | 1 | (33%) | 6 | (60%) | 4 | (100%) | 6 | (100%) | 7 | (58%) |
| South West | 118 | (1%) | 67 | (57%) | 7 | (58%) | 4 | (44%) | 8 | (50%) | 7 | (64%) | 8 | (53%) | 4 | (40%) | 6 | (46%) | 10 | (77%) | 8 | (80%) | 5 | (56%) |
| Cape York | 24 | (0%) | 17 | (71%) | 1 | (50%) | | | 3 | (75%) | 1 | (50%) | 1 | (50%) | 2 | (100%) | 1 | (100%) | 3 | (75%) | 1 | (100%) | 4 | (67%) |
| North West | 91 | (0%) | 37 | (41%) | 3 | (25%) | | | 8 | (50%) | | | 9 | (60%) | 2 | (17%) | 6 | (46%) | 2 | (100%) | 4 | (33%) | 3 | (60%) |
| Torres Strait-Northern Peninsula | 11 | (0%) | 8 | (73%) | | | 1 | (50%) | | | 1 | (50%) | 2 | (100%) | 1 | (100%) | 1 | (100%) | | | 1 | (50%) | 1 | (100%) |
| Qld Unknown | 16 | (0%) | 5 | (31%) | | | | | | | 2 | (100%) | | | | | 1 | (33%) | 1 | (33%) | | | 1 | (25%) |

Surgery rates for a single year are calculated as a % total of the breast cancer surgery cohort for that year.

Technical appendix



How different counting rules can be applied to a patient

The calculations of surgery counts were defined for each data sheet and were tailored to each cancer. Below are four examples of how the counting rules applied.



ID 123456



03/03/2010

| ICD-10-AM Procedures | Number of surgeries | Ever had | Definitive |
|--|---|--|---|
| 15/03/2010 <div>Complete excision of lesion with guidewire</div> <div>Excision of sentinel lymph node(s) in level I, II or III of axilla</div> | 15/03/2010 <div>Excision of lesion</div> <div>Sentinel lymph node surgery</div> | <div>Excision of lesion 15/03/2010 N = 1</div> <div>Sentinel lymph node surgery 15/03/2010 N = 1</div> | <div>Mastectomy 1/06/2010</div> |
| 17/4/2010 <div>Re-excision of lesion site</div> | 17/4/2010 <div>Re-excision of lesion site</div> | <div>Re-excision of lesion site 17/04/2010 N = 1</div> | <div>Definitive surgery Mastectomy within 12 months of the first procedure</div> |
| 15/05/2010 <div>Re-excision of lesion site</div> <div>Level I of excision of lymph nodes of axilla</div> | 15/05/2010 <div>Re-excision of lesion site</div> <div>Axillary dissection</div> | <div>Axillary dissection 15/05/2010 N = 1</div> <div>Mastectomy 01/06/2010 N = 1</div> | <div>Rules applied to the number of surgeries group Surgery > 1 month before and 12 months after the date of diagnosis were excluded</div> |
| 01/06.2010 <div>Total mastectomy (unilateral)</div> <div>Level II or III excision of lymph nodes of axilla</div> | 01/06.2010 <div>Mastectomy</div> <div>Axillary dissection</div> | | <div>Number of surgeries count Excision of lesion n = 1 SLN surgery n = 1 Re-excision of lesion site n = 2 Axillary dissection n = 2 Mastectomy n = 1</div> |
| | | | <div>ICD-10-AM Procedure count Complete excision of lesion with guidewire n = 1 Excision of SLN in level I, II or III of axilla n = 1 Re-excision of lesion site n = 2 Level I of excision of lymph nodes of axilla n = 1 Mastectomy n = 1 Level II or III excision of lymph nodes of axilla n = 1</div> |

Counts of surgery across groups for patients diagnosed with breast cancer from 2001 - 2010

| SURGERY | NUMBER OF SURGERIES | EVER HAD* | DEFINITIVE* |
|---|---------------------|---------------|---------------|
| Breast conservation surgery (excision of lesion & re-excision of lesion) | 15,966 | 15,104 | 12,813 |
| Mastectomy | 9,519 | 9,311 | 9,311 |
| Re-excision of lesion site | 2,505 | 2,396 | |
| Sentinel lymph node surgery | 5,230 | 4,997 | |
| Axillary dissection | 17,114 | 15,985 | |
| Total | 50,334 | 47,793 | 22,124 |

Rules applied to surgical cohort

- Surgery > 1 month before and 12 months after the date of diagnosis were excluded

*Rules applied to ever had

- If a patient has 2 of the same surgeries within the surgical cohort time period only the first surgery is counted

*Rules applied to definitive

- Mastectomy within 12 months of the first procedure

Definitions

Annual average

Annual average refers to the sum of numbers divided by the number of years being reported. In this report annual average numbers have been rounded up to the nearest whole number for those with less than one.

Breast cancer tumour size

Breast tumour size in millimetres classified according to 'TNM Classification of Malignant Tumours' 7th edition, UICC International Union Against Cancer.

Breast conservation surgery

Includes Queensland female residents of all ages diagnosed with invasive breast cancer in the surgical cohort time period who underwent one of the following procedures: excision of lesion of breast and/or re-excision of lesion.

Chargeable status – Public and Private

On admission to hospital, an eligible patient must elect to be as either a public or private patient.

A public patient is a patient who:

- Elects to be treated as a public patient, and so cannot choose the doctor who treats them, or
- Is receiving treatment in a private hospital under a contract arrangement with a public hospital or health authority.

A private patient is a patient who, by choosing the doctor who will treat them (provided the doctor has 'right of private practice' or is a general practitioner/specialist with admitting rights) has elected to be treated as a private patient.

Cohort

Queensland cancer cohort

Queenslanders who were identified in Queensland Oncology Repository (QOR) as being diagnosed with cancer between 1 January 2001 and 31 December 2010.

Breast cancer cohort

Queensland female residents who were diagnosed with breast cancer between 1 January 2001 and 31 December 2010.

Breast cancer surgery cohort

Anyone in the breast cancer cohort who had any of the identified cancer related procedures one month before or 12 months after their diagnosis (outlined on page four).

No surgery cohort

Anyone in the breast cancer cohort who did not have any of the defined surgeries during the designated time period (outlined on page four).

Col %

Percentage of the column total.

Definitive surgery

Mastectomy within 12 months of the first procedure. If mastectomy was not recorded then the last record of either excision of lesion of breast or re-excision of lesion site within 12 months of the first procedure was selected.

Breast cancer procedure hierarchy

1. Mastectomy
2. Excision of lesion of breast

Diagnosis basis

Confirmation of cancer through clinical or histological tests.

Ever had surgery

Patients are counted once within the surgical groups but can be across multiple groups. For example: a patient had 1 excision of lesion, 2 re-excisions of lesion site and 1 mastectomy. The patient would be counted as 1 excision of lesion, 1 re-excision of lesion site and 1 mastectomy.

Had surgery

Includes Queensland female residents of all ages diagnosed with invasive breast cancer in the surgical cohort time period who underwent surgery as defined by the procedures (outlined on page four).

Histological type

The type of cell that has become neoplastic. For example infiltrating ductal carcinoma or lobular carcinoma.

Hospital and Health Service (HHS)

For residence considerations, the Hospital and Health Service is a geographic area defined by a collection of Statistical Local Areas (SLA). For public Hospitals and Health Service facilities, the term Hospital and Health Service is synonymous with a group of Queensland Health facilities and staff responsible for providing and delivering health resources and services to an area which may consist of one or more residential areas.

Queensland unknown residence includes addresses reported as overseas, unknown, or not fixed.

Indigenous status

A measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin.

Lobular histological type

Cancer that started in cells that line the lobules of the breast and has spread into the surrounding breast tissue.

Malignant tumour

Growth of tumour is characteristically invasive and infiltrative, extending beyond the tissue of origin into adjacent organs.

Mastectomy

Includes Queensland female residents of all ages diagnosed with invasive breast cancer in the surgical cohort time period who underwent one of the following procedures: total mastectomy (unilateral), total mastectomy (bilateral), subcutaneous mastectomy (unilateral), subcutaneous mastectomy (bilateral).

Median age (years)

The age that divides a population into two halves: one older than the median, the other younger than the median.

Median tumour size (millimetres)

The tumour size that divides a population into two halves: one larger than the median, the other smaller than the median.

Multifocal

Breast cancer in which there is more than one tumour, all of which have arisen from one original tumour.

No surgery

Includes Queensland female residents of all ages diagnosed with invasive breast cancer who did not undergo surgery as an admitted patient in the surgical cohort time period, as defined by the procedures (outlined on page four) Exclusion example: core biopsy of breast performed in a private clinic.

Number of procedures

Includes Queensland female residents of all ages diagnosed with invasive breast cancer who underwent a relevant breast cancer procedure.

Number of surgeries

Includes Queensland female residents of all ages diagnosed with invasive breast cancer in the surgical cohort time period who underwent one of the surgeries. (Outlined on page four).

Patient flows

Col% is used to show the distribution of residence for the total group of patients who were operated on by a single HHS. Row% is used to show the proportion of patients residing in a given HHS who also receive their surgery in the same HHS, and what proportion had their surgery in another HHS.

Qld %

Percentage of the Queensland total.

Remoteness

The relative remoteness of residence at time of diagnosis, based on the Australian Standard Geographical Classification (ASGC). This document classifies remoteness into four groups: Major City, Inner Regional, Outer Regional, and Remote/Very remote.

Row %

Percentage of the row total.

Socioeconomic status

Socioeconomic classification is based on the Socio-Economic Indexes for Areas (SEIFA), a census-based measure of social and economic well-being developed by the Australian Bureau of Statistics (ABS) and aggregated at the level of Statistical Local Areas (SLA).

The ABS uses SEIFA scores to rank regions into ten groups or deciles numbered 1 to 10, with 1 being the most disadvantaged group and 10 being the most affluent group. This ranking is useful at the national level, but the number of people in each decile often becomes too small for meaningful comparisons when applied to a subset of the population. For this reason, this document further aggregates SEIFA deciles into 3 socioeconomic groups:

| SEIFA Group | Decile | Percentage of population (approximate) |
|---------------|--------|--|
| Affluent | 1-2 | 20% |
| Middle | 3-8 | 60% |
| Disadvantaged | 9-10 | 20% |

The proportion of cases in each group will vary depending on the subset of the population being examined. For example, the proportion in the Disadvantaged group may be higher than 20% when the data is limited to cancers that are more common in poor compared to rich people.

T1%

Percentage of invasive breast cancer tumours size T1.

For more information

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