

Systematic review of the quantity and quality of cancer research publications in New South Wales: 1999 to 2006

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EXECUTIVE SUMMARY

Analyses in this report are based on two censuses of the cancer literature, from *SCI-SSCI* and from *Medline*, with primary focus on *SCI-SSCI*. The *Medline* database also provided a census of the medical literature.

For the period 1999-2006, Australia's share of the World output of publications on cancer is estimated as 2.2% with a high of 2.4% in 2006.

For this period, NSW produced the largest number of publications on cancer of any Australian state, with slightly over 31% of the national output. It was marginally ahead of VIC with slightly over 30%, and well ahead of the other states, eg. QLD ranks third with slightly over 15%. However, when adjusted for the population size of states with >1 million, NSW's eight-year output in publications on cancer was lower than that of VIC, SA and WA in the *SCI-SSCI* database and lower than that of VIC and SA in the *Medline* database.

From 1999 to 2006 the annual outputs of publications on cancer grew for both NSW and VIC, and for Australia generally, with considerable growth from 2004 to 2006.

For the period 1999-2006, the publications on cancer from NSW were of lower 'quality' – as measured by mean Impact Factor (IF) – than those from VIC, WA, QLD and ACT, as well as those for Australia as a whole.

For the period 1999-2006, NSW and VIC produced nearly the same number of publications for all medical fields with each having nearly 30% of the national output, well ahead of QLD with nearly 15%. However, adjusted for the population size of states, NSW again showed a lower output than VIC. Nearly 15% of the Australian medical literature was devoted to cancer, with NSW, VIC and QLD close to the national average; however QLD's proportion steadily declined over the period.

For the same period, the publications in medicine from NSW were of lower quality – as measured by mean Impact Factor (IF) – than those from VIC, and those for Australia as a whole. However the disparity here was not as great as that for cancer publications: while the quality of NSW's cancer publications slightly exceeded that of all its medical publications, the quality of VIC's cancer publications was substantially better.

From 1999-2006 Australia's contribution to the world's research output on cancer was especially strong in the areas of melanoma related skin cancer and breast cancer with a share of 3.4% and 2.8% of the world's publications. Trailing Australia's average of 2.2% on cancer were research areas on upper gastrointestinal cancer and neurological cancer with 1.7% and 1.8% of the world's research output.

NSW is the strongest contributor of cancer research among all the Australian states for the eight-year period. NSW is especially strong on research on melanoma skin cancer, with a total share of 36.8% of all publications; this figure is not matched for any other body region by any other state. Other strong research areas for NSW are skin cancer research and breast cancer research. Research areas with strong contributions from VIC are research on cancer for bone and other connective tissues and Lymphohaematopoietic cancer.

Allocating the Australian cancer publications of NSW, VIC and the other states into four broad research areas (Basic, Clinical, Public Health and Psychosocial/Behavioural research)

showed that the first two research areas predominated with VIC focussing slightly more on Basic Research and NSW on Clinical research. Public Health and Psychosocial/Behavioural research are stronger for the other states relative to NSW and VIC.

Twelve Research Hubs in NSW were identified and the allocation of publications from 1999 to 2006 (according to author affiliation) showed that 'Central Sydney' consistently ranked first with about 30% of the publications contributed by researchers at the University of Sydney. The 'Randwick' research hub was second with about 20%, mostly from researchers at the University of New South Wales.

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Systematic review of the quantity and quality of cancer research publications in New South Wales: 1999 to 2006

INTRODUCTION

The main aim of the project is to determine the quantity and quality of recent publications on cancer research produced in New South Wales vis-à-vis the other States of Australia. Subsidiary aims are to determine the relative contribution of Australia to research on cancer world-wide, and to compare the quantity and quality of Australian cancer research publications vis-à-vis all Australian medical research publications. Sections I and II follow closely the presentation of an earlier publication (Wilson & Pittman, 2000) which charted cancer-related publications from 1994 to 1998; hence, with the results of this study, a further eight years (1999 to 2006) can be charted and trends shown for 13 years.

Sections I and II: The project was carried out broadly as follows. Two separate censuses of the cancer literature were made from two sets of databases, for each year from 1999 to 2006 inclusive. These databases were: (1) *Science Citation Index* and *Social Sciences Citation Index (SCI-SSCI)* and (2) *Medline*. Although the focus of the report will be on findings from the citation databases (*SCI-SSCI*); *Medline* provides a comparison between a reasonably comprehensive science and social science databases (*SCI-SSCI*) with that of a specialized medical database. A comprehensive list of tables appears in the Appendix; figures based on some of the tables will be used in the body of the report when appropriate.

For each census, publications were allocated to each Australian state if it was directly named, or otherwise indicated, in their author address fields. Throughout the report, 'states' refers both to the six states, viz. New South Wales (NSW), Victoria (VIC), Queensland (QLD), South Australia (SA), Western Australia (WA), and Tasmania (TAS), and to the two territories, viz. the Australian Capital Territory (ACT) and the Northern Territory (NT). The number of publications so allocated was taken as the research output of each state.

The quality of the publications produced was estimated from the Impact Factors of the journals in which they were published, as determined from the Thomson Scientific *Journal Citation Reports (JCRs)*. Additional measures of quality based on the quantity of international collaboration were also used in the *SCI-SSCI* analysis.

Sections III-V: Based on the results from Sections I and II, Australia's cancer research publications were analysed further in three different parts.

- **Section III** identified the strengths and weaknesses of Australia's cancer research publications related to different Clinical Groupings. It shows the extent of Australia's contribution in different specialisations, thus enabling the identification of specific research areas where Australia is performing above or below its overall average. Additionally, we looked at the relative contributions of the individual Australian states to Australia's over all cancer research activity with special emphasis on NSW and VIC and to a lesser extent, the other states, particularly QLD and WA.

- Section IV allocated Australia's cancer research publications into four broad research areas based on the subject categories assigned to journals in the *SCI-SSCI* database. The results provided analysis of Australia's relative contribution to these four broad research areas. Parallel to Section I we looked at the contribution of Australia as a whole, as well as each state's share of this contribution with special emphasis on NSW and VIC.
- Section V provided a closer look at institutions engaged in cancer research in NSW between 1999 to 2006. It identified the share of research undertaken from within NSW's various research hubs. Highly productive institutions that contributed to NSW's cancer research are identified.

METHODOLOGY

Outline

(1) The *Science Citation Index* and *Social Sciences Citation Index (SCI-SSCI)* databases were used to obtain, for each year from 1999 to 2006 inclusive:

- the number and percentage of publications on cancer-related research for the World and for Australia;
- the number and percentage of publications on cancer-related research for each Australian state;
- the mean Impact Factors (IFs) for publications on cancer-related research for each Australian state and for all of Australia;
- the degree of international collaboration between Australian and overseas researchers on cancer-related research;
- the number and percentage of publications on cancer-related research by body region for the World, for Australia, for NSW, VIC and the other states combined;
- the number and percentage of publications on cancer-related research in each of four broad research areas (based on the assigned subject categories for each journal) for Australia, NSW, VIC and the other states combined;
- the productivity of the most prolific organizations and/or institutions ('research hubs') in cancer-related publications allocated to NSW.

(2) The *Medline* database was used to obtain, for each year from 1999 to 2006 inclusive:

- the number and percentage of publications in medicine and on cancer for the World and for Australia;
- the number and percentage of publications in medicine and on cancer for each Australian state;
- the mean Impact Factors (IFs) for publications in medicine and on cancer for each Australian state;
- the number and percentage of publications on cancer-related research by body region for the World, for Australia, for NSW, VIC and the other states combined.

Databases

(1) *Science Citation Index* and *Social Sciences Citation Index (SCI-SSCI)*: These databases of Thomson Scientific, formerly the Institute for Scientific Information (ISI), are standard international sources for scientometric and bibliometric analyses. As citation databases, they allow for impact studies on, for example, journals, authors or individual documents. Their yearly impact data for the journals they cover are collated by Thomson Scientific separately in the *Journal Citation Reports (JCR)*. Since we are using the Impact Factor here as our measure of publication quality, we have chosen these databases as our main source for analyses.

SCI-SSCI are international and multidisciplinary citation indexes to scholarly research literature in science, technology, biomedicine (<http://scientific.thomson.com/products/sci/>), and behavioural and social sciences (<http://scientific.thomson.com/products/ssci/>). They are almost exclusively devoted to publications in journals and are distinguished on the basis of citation analyses which result in coverage of the most significant publications in all fields of knowledge of the sciences and social sciences from approximately 7,000 of the most prestigious and high impact journals world-wide. Most cancer-related research publications are tracked in the *Science Citation Index (SCI)*; however, most of the psychological and social services aspects of cancer-related research publications are tracked in the *Social Sciences Citation Index (SSCI)*. We therefore searched both databases (referred to as *SCI-SSCI*) for the required cancer-related literature.

(2) *Medline*: This database is freely available online and is totally devoted to medical research; its aim is for comprehensive coverage primarily to publications in about 5,000 biomedical journals published in the United States and in more than 80 other countries. We used *Medline* (<http://www.ncbi.nlm.nih.gov/entrez/query/static/overview.html#Medline>) to provide a census of the overall medical research publications as well as the cancer-related research publications.¹ A distinctive feature of *Medline* is that the records are indexed with the U.S. National Library of Medicine (NLM) controlled vocabulary, the Medical Subject Headings (MeSH).

Non-citation databases such as *Medline* do not easily permit the calculation of Impact Factors. To obtain our chosen measure of quality for their publications, it was necessary to consult the *JCRs* which are based on the journals in the *SCI-SSCI* databases. Unfortunately, not all the journals covered by *Medline* are covered by *SCI-SSCI*; for these, no measured Impact Factors could be assigned. However, as *SCI-SSCI* typically exclude journals of low impact, the assumption that these journals in *Medline* have zero or negligible impact factors is safe.

Document Retrieval

All three databases used in this project were searched through the Dialog Information Services (<http://www.dialog.com>): *Medline* was generally searched separately; *SCI* and *SSCI* were always searched together using the Dialog duplicate-detection feature to remove any publication which occurs in both citation databases. However, for the Section III allocation of

¹ The CancerLit database (totally devoted to cancer research publications and based in part on cancer-related publications indexed in *Medline*) used in an earlier study (Wilson & Pittman 2000) ceased publication in 2002 and hence, was not used in this study.

publications by Clinical Groupings, separate counts were obtained for *SCI-SSCI* and *Medline* as well as unique (without duplicate records) counts for all three databases. For all three databases, the RANK command of Dialog was used to place the values in required fields (e.g. *journal name*, *institutional address*) into decreasing order of the number of publications. All searches for this report were performed during June to August 2007, for publication years 1999 to 2006.

Subject Definition

(1) *Science Citation Index (SCI) - Social Sciences Citation Index (SSCI)* : As noted, the *SCI-SSCI* databases have a very wide coverage of publications outside the medical area. Thus, to obtain cancer-related publications, it was necessary to search for a subset of documents identified by the presence of keywords (or keyphrases) for cancer-related research in appropriate fields (e.g. *title*, *abstract*, and *author-provided descriptors*). The keywords used here were intended to cover all aspects of malignant neoplasms. We used the same unique terms as those identified in the *Medical Subject Headings (MeSH)* under the term neoplasms, as well as many other additional terms. This lengthy strategy for searching cancer-related keywords or keyphrases was used each time we ran a *SCI-SSCI* search. It should be noted that this is a generous definition of cancer-related research, and clearly exceeds purely clinical aspects. Nevertheless, when we RANKed the publications retrieved on the *journal subject category* field in *SCI-SSCI* (a field which identifies the major subject area(s) covered by a journal according to Thomson Scientific's journal classification scheme), the highest ranked journal subject category was ONCOLOGY.

(2) *Medline*: As noted, *Medline* indexes medical research publications. To obtain publications in medical research, *Medline* was searched without subject restriction. However we used the same set of keywords used in *SCI-SSCI* to retrieve cancer-related publications in *Medline*. We note that the cancer-related literatures obtained from *SCI-SSCI* and from *Medline* differ somewhat due to the different journal selection policies of the respective database producers.

Publications from Australia

Publications were considered to be Australian if at least one author had an institutional affiliation in Australia. For *SCI-SSCI* we used the *geographical location* field to search for the term AUSTRALIA. For *Medline*, the country name was located in the *address* field. The identification of these publications was reasonably straightforward for all three databases.

Allocation over Australian States

Each publication was allocated to those states in which at least one author had institutional affiliation. For *SCI-SSCI* we used the *corporate source* field (which contains institutional and geographic address data) to identify states. For *Medline*, states were identified in the *address* field. Identifying the eight states of Australia was not straightforward. Considerable effort went into ensuring that all addresses were correctly apportioned to the appropriate state(s). We began by identifying all the states by their full or abbreviated names. When these were absent, we looked at the full or abbreviated names of major cities and towns, from which we could determine the states. When these also were not given, we looked at the names of the institutions (e.g. names of hospitals or research institutes), ascertained their location, and could then appropriately assign the publications.

A few publications were not used as they were incorrectly indexed; for example, indexed under AUSTRALIA, when on inspection the country proved to be AUSTRIA. However, the number of incorrectly indexed publications was quite small in all three databases.²

It should be noted that the present method of allocating publications to states means that a single publication would be assigned to more than one state if its different authors listed institutional affiliations in different states. Accordingly, attention was given to inter-state collaboration among Australian researchers, and specifically to determining the proportion of each state's allocated publications that were authored in only that state.

Publication Impact Factors

In general, 'quality' denotes conformance to standards. For scientific publications, the ultimate standard is 'contribution to knowledge', or equivalently, influence or impact on subsequent research. To measure this impact or influence we make two (standard) assumptions:

- Impact can be measured by the number of times a publication is cited from the succeeding literature over some fixed time span.
- The impact of any paper in a journal is well-estimated by the mean impact of all papers in that journal for a fixed short time span.

Regarding the first assumption, in lieu of *all* the literature, it is more practical to take a standard set of the better literature, or rather the publications in the better journals, as determined by the same measure. This is what Thomson Scientific has done to produce its journal Impact Factor (IF). Formally, this is the number of citations to articles published in a specific journal for each year, received from the articles in the Thomson Scientific databases (most particularly *SCI-SSCI*) for the two succeeding years, divided by the total number of articles published in the same journal for that year. The journal IF is thus a measure of the frequency with which the 'average paper' in a journal has been cited in a particular year.³

It is helpful to give some examples of journal IFs here, so that the measure may be better appreciated. We use the *JCR* for 2006, and restrict attention to over 6000 *SCI* journals. IFs range from 63.34 to 0, but the distribution is very skewed: 94.4% of all journals have IFs of 5 or less, and 61.6% of all journals have IFs of 1 or less; the median IF is only 1.13. In general the higher IFs attach to eminent medical and biochemical journals. Examples, selected from the top 100 journals cited by cancer researchers in NSW and VIC from 1999-2006, are: *New England Journal of Medicine* (51.30), *Lancet* (25.80), *JAMA* (23.18), *Journal of Clinical Oncology* (13.60), *British Journal of Cancer* (4.46), *Medical Journal of Australia* (2.58), *Anticancer Research* (1.48) and *Australian and New Zealand Journal of Surgery* (0.88).⁴ In contrast, nearly 1800 journals from *SSCI* have much lower IFs. The 2006 *JCR* for *SSCI* provides IFs ranging from only 14.96 to 0, with skewed distributions as with *SCI*. Thomson Scientific stresses that a journal's IF is a meaningful indicator only when considered in the context of similar journals covering a single field of investigation or subject discipline (e.g., ONCOLOGY). The yearly IFs for over 7000 journals are published in Thomson Scientific's *Journal Citation Reports (JCRs)*. Thus the *JCR* provides a systematic and objective means for

² *Medline* had 12 out of 11,800; and *SCI-SSCI*, 4 out of 17,917.

³ More information on Impact Factors and their uses can be found at: <http://www.isinet.com/hot/essays/7.html> and <http://www.isinet.com/hot/essays/8.html>

⁴ We note that *Med J Australia* and *ANZ J Surg* (with relatively low IFs) are generally in the top ten (often the top two) journals where NSW and VIC researchers publish cancer-related papers from 1999 to 2006.

determining the relative importance of science and social science journals, and the papers within them, within their subject categories.

Procedure

From each of the two sets of publications obtained above for Australia (on cancer-related research from *SCI-SSCI*, in medicine and cancer-related research from *Medline*), a combined set of journal titles was obtained for each year from 1999 to 2006. The Impact Factor for each journal in each yearly list was obtained by looking up the appropriate issue of *JCR* to obtain a master list for that year. No Impact Factor could be found for a minority of ‘journals’ in each yearly master list. These came preponderantly from the *Medline* database, and are mainly publications in monographs and journal supplements. We safely assume that these ‘journals’ have zero or negligible Impact Factors.⁵

Each of the numerous sub-collections of publications for analysis (e.g. the cancer-related literature allocated to NSW for 1999 according to *SCI-SSCI*) was ranked on the *publication journal* field into decreasing order of publications using Dialog’s RANK feature; that is, each was compressed to a (journal title) × (number of publications) list. The Impact Factor was then found for each journal in these sub-collections from the appropriate yearly master list. Finally, the mean Impact Factor; that is, the quality measure for each sub-collection was obtained from the sum of journal Impact Factors for the sub-collection, weighted by the number of publications per journal.

International Collaboration

Since the evaluation of the ‘quality’ of publications is of central importance in the project, we sought other measures of quality to the IF. Apart from evaluation by specialists, there is no recognised substitute for the journal IF, and we were forced to apply somewhat novel but crude measures used in an earlier report (Wilson & Pittman 2000). It seems to us that the degree of international collaboration on publications from a geographical region might be used to gauge their quality (again, in the sense of their influence). The premise is that researchers from one geographical region will seek to collaborate with researchers from a more eminent or recognised geographical region (in the same research area), and by such collaboration produce higher quality research. For cancer researchers in the Australian states, greater collaboration with researchers in the USA and ENGLAND should therefore suggest better research publications in general. Reciprocally, researchers from these countries would benefit more from collaboration with the better Australian researchers. This suggests two related indicators of research quality: the percentage of all international collaborations that are with the USA, and the percentage of all international collaborations that are with both the USA and ENGLAND. It also follows that researchers from ‘less-eminent’ countries than Australia will seek collaborators here, and will be drawn more to the regions producing better research publications. In sum, then, the total number of international collaborations per 100 publications, and the total number of collaborating countries per 100 publications, may also serve as indicators of the quality of the publications of an Australian region. We reiterate that these four variables are not proven measures, but are merely plausible measures, of publication quality; we limit their use to only supporting or questioning IF results.

Procedure

The *SCI-SSCI* databases were used to identify Australian cancer-related publications in which authors from other countries contributed. Each of the numerous sub-collections of publications for analysis (e.g. the cancer-related literature allocated to NSW for 1999

⁵ The exact numbers are provided with the appropriate analyses in the Results section.

according to *SCI-SSCI*) was ranked on the *geographic location* field into decreasing order of publications using Dialog's RANK feature; that is, each was compressed to a (country name) × (number of publications) list. Removing AUSTRALIA, which obviously has to appear in all publications, we obtained a ranked order of countries which collaborate on publications in these sub-collections. The sum of these publications for each country was taken as the total number of collaborations with that country.

It should be noted that each country can appear only once in the *geographic location* field of one record, so the allocation of publications over countries follows a similar procedure to the allocation of publications over Australian states. Both the number of collaborations and the identity of each collaborating country were compiled for each of the sub-collections analysed.

Publications by Clinical Groupings

“Clinical Groupings are used to describe cancers that have been categorised based on professional treatment teams for that group of cancers. For example a urologist would commonly treat cancers of the prostate, testis, bladder, kidney and other male genital cancers. Similarly a gynaecologist would normally treat cancers of the cervix, uterus, ovary, and other female genital cancers. These groupings have been adopted in Australia where appropriate as normal inclusions in state and national incidence and mortality reports. A list of Clinical Groupings is included within the appendix of this report.”⁶

In order to compare the output of cancer research pertaining to Clinical Groupings, it was necessary to create a list of terms specific to various types of cancer. We used two broad and comprehensive medical thesauri (*MeSH* and *EMTree*) to create the list; both have a section on NEOPLASMS in which cancer-related terms are subsumed. From the thesauri, we extracted terms to form a comprehensive list for 13 different Clinical Groupings used in our analyses. In order to compress the list of terms, expressions with clear descriptions of a body region were collapsed to the common descriptive term. Also, terms with different endings were stemmed and truncated (e.g. Hemangioendothelioma and Hemangioendotheliosarcoma became 'HEMANGIOENDOTHELIO').

To ensure accuracy and completeness of the assigned terms the list was reviewed by experts from the NSW Cancer Institute. However, it is important to note that there is generally not a clear demarcation between the different Clinical Groupings. For example: one might classify cancer of the 'hypophysis' either as part of the neurological system or the endocrine system. Other examples are 'orbit cancer' that can be defined as either part of the eye or the skin and the 'optical nerve' which may be classified as part of the eye or the neurological system. For this reason research on different Clinical Groupings overlaps to a certain extent and an individual paper might be attributed to more than one region. Multiple counts might also be triggered by the fact that some research may deal with more than one type of cancer. Because of the nature of the search terms used for some clinical groupings, for example, 'head and neck' some groups will pick up more 'noise' than others. In this example the term 'head' might pick up some documents related to other clinical groupings, describing symptoms. However, in general the allocation to different Clinical Groupings is straight forward. The search using specific body region terms provided results that allow comparison of cancer research between different units of analysis: over time, the World, Australia, or individual Australian states. However, comparison of the extent of research within one of the units can be limited as we cannot ensure that all research belonging to each unit was correctly identified and allocated; to do so would entail a large scale analysis of the full text of all publication. Therefore,

⁶ Tracey E A, Chen S, Baker D, Bishop J, Jelfs P. Cancer in New South Wales: Incidence and Mortality 2004. Sydney. Cancer Institute NSW November 2006

caution is necessary when comparing the percentages for research on different parts of the body with each other, for example, saying there is twice as much research on breast cancer than there is on melanoma. It is clear, however, that Australia has proportionally and significantly higher research outputs in these areas than the World.

Procedure

Publications on cancer were identified for the World, Australia and the Australian states from *SCI-SSCI* and *Medline* as in Stage I. The resulting search sets were further sub-allocated by the various lists of terms for specific Clinical Groupings. To provide a more comprehensive picture for cancer by Clinical Groupings for Australia and each of the states, all three databases were searched simultaneously and duplicate records removed using Dialog's RD command. Combining the three databases increased the number of records by about 20% more than records retrieved from *SCI-SSCI* alone. It was not possible to obtain comparable figures for cancer by Clinical Groupings for the World from all three databases due to the size of the literature and the technical limitations of the duplicate removal feature in Dialog.

Publications by Broad Research Areas

The journal *subject categories* (SCs) assigned by Thomson Scientific for the *SCI-SSCI* database was used to allocate research publications to four broad research areas. Each journal is assigned one or more SCs, each reflecting research fields such as ONCOLOGY, SURGERY, PSYCHOLOGY, etc.⁷ The RANKed list of journal *subject categories* in which the cancer research papers appeared was then mapped into one or more of the four broad research areas: Basic Research, Public Health, Clinical Research and Psycho- Behavioural. For example, papers that appeared in Biophysics journals were assigned to Basic Research, whereas papers in journals from the area of Pharmacology and Pharmacy were allocated to Clinical Research. The allocation was guided by the Cancer Institute NSW. If one SC can be associated with either one or more broad research area, the number of publications for this category was evenly attributed among the broad research areas under consideration; for example, papers in journals on Immunology were allocated both to Basic research and Clinical Research. In order to limit the effect of the most common subject category, ONCOLOGY, the count was limited to journal publications that carry this category only; those with ONCOLOGY and other SCs were allocated to the appropriate broad research area(s) as above.

Procedure

The *SCI-SSCI* databases were used to identify cancer-related publications for each sub-collection (e.g. the cancer-related literature allocated to NSW for 1999 according to *SCI-SSCI*), which then were RANKed in decreasing order by journal *subject categories* (SCs). The counts for each SC were then collapsed into the four broad research areas. In order to get the counts for publications that only appeared under the category ONCOLOGY it was necessary to remove all publications carrying a different subject heading as well, thus resulting in a list with the number of publications that just carried ONCOLOGY alone.

⁷ The journal *subject categories* (SCs) provide a dynamic set of research fields and in 2005, there were 244 SCs and each of 10,550 journals associated with between one to six SCs: 60.8% had one, 28.7% had two, 8.3% had three, 1.9% had four, 0.2% had five, and only one journal had six. We can assume that about 39% of journals have more than one SC in the study period: 1999 to 2006.

Publications by Institutional Research Hubs in NSW

The address details for all articles on cancer related research allocated to NSW were downloaded and then apportioned to the different research hubs specified by the Cancer Institute NSW. As authors from different institutions might have been involved in writing a particular journal article, it was necessary to get the address details for all participating authors. Each article was then attributed to research hubs once for every participating author from NSW. Therefore one article might have been attributed several times, depending on the number of participating authors from NSW. As large research entities, like universities, often have a wide range of departments which all undertake cancer related research, but which stretch over different research hubs, it was necessary to further break down the addresses to the department levels. With the assistance of the Cancer Institute NSW it was then possible to identify the research hub for all institutions and their departments. The counts for all research hubs were then combined and divided by all allocations from all research hubs in order to get the relative contribution for each year by each research hub.

Procedure

The CS (Corporate Source) field for all records with at least one author from NSW was downloaded from the SCI-SSCI database and put into a spread sheet table. The addresses were then sorted alphabetically in order to cluster entries from the same institution. For larger institutions it was then necessary to further divide the addresses according to the different departments or research units. After considerable standardization of the addresses, it was then possible to assign every entry to a research hub. All entries for each research hub were then combined to get the number of publications by each research hub.

RESULTS

The results are presented in five sections. The text draws attention to salient points in the results which are fully presented in the Tables in the Appendix. Where appropriate, some Tables will appear in the text; however, Figures will be used to supplement some of the Tables.

- The first section treats analyses of the cancer-related literature obtained from the *Science Citation Index (SCI)* and the *Social Sciences Citation Index (SSCI)*.
- The second section treats analyses of the cancer literature and parallel analyses of the broader medical literature obtained from *Medline*.
- The third section treats analyses of the cancer literature for different parts of the body obtained from the *Science Citation Index (SCI)* - *Social Sciences Citation Index (SSCI)* and *Medline*.
- The fourth section treats analyses of the cancer literature by broad research areas obtained from the *Science Citation Index (SCI)* - *Social Sciences Citation Index (SSCI)*.
- The fifth section treats analyses for research hubs within NSW as producers of cancer literature obtained from the *Science Citation Index (SCI)* - *Social Sciences Citation Index (SSCI)*.

I. Analysis of cancer publications from SCI-SSCI

Australia's share of the World output of cancer-related publications

Table 1 lists the number of publications in cancer-related research, both for Australia and for the World, by year and in toto for the period 1999-2006. The data show a small growth from 1999 to 2003. In 2004 growth was quite marked with another growth spurt in 2006; over the whole period Australia's annual output grew 70%. A less spectacular growth rate for the World is seen (42%). Consequently, Australia's share is increasing slightly from 2.0% to 2.4% in 2006.⁸

TABLE 1: The number of publications on cancer for the years 1999-2006, both by Australian researchers and in the World, according to SCI-SSCI.

(Duplicate records, have not been removed.)

Year	No. pubs. Australia	growth to previous year (%)*	No. pubs. World	Australia's share (%)
1999	1,781		88,398	2.0
2000	1,881	5.6	88,604	2.1
2001	1,932	2.7	91,727	2.1
2002	2,000	3.5	97,035	2.1
2003	2,113	5.7	101,150	2.1
2004	2,514	19.0	110,390	2.3
2005	2,661	5.8	119,530	2.2
2006	3,035	14.1	125,934	2.4
8-yr period	17,917	70.4	822,768	2.2

* The calculation is based on the number of publications for a given year as a gain of publications from the previous year. The total growth is based on the number of publications in 2006 as a gain of the publications from 1999.

Allocation of Australian cancer-related publications over the states

As explained in the Methodology section, each publication is allocated separately to each of those states given in its (authors') institutional affiliation list, with no state receiving more than one allocation. Due to the inter-state collaboration of authors, the literature allocated to each state will overlap to some degree with that of other states.

⁸ Technical reasons prevented the removal of duplicate records from very large data sets such as the World's annual cancer-related research publications. Thus, duplicate records have not been removed in this Table.

Table 2A provides data on the allocation of publications; an explanatory summary is given below the Table. Australia's 17,003 unique publications distribute over the states as 20,601 allocated publications; 82.8% of these are from a single state only, while the remainder are produced from an average of 2.23 states each.

TABLE 2A: Details of the allocation of unique publications from Australia over the eight Australian 'states'. (Data according to SCI-SSCI.)

State	Total no. pubs. allocated to state	No. pubs. allocated to one or more other states	No. pubs. from this state only	[No. pubs. from this state only] / [No. pubs. allocated to state] (%)	[No. pubs. from this state only] / [No. pubs. from Australia] (%)
NSW	6,452	1,756	4,696	72.8	27.6
VIC	6,214	1,789	4,425	71.2	26.0
QLD	3,160	996	2,164	68.5	12.7
SA	1,865	553	1,312	70.3	7.7
WA	1,893	739	1,154	61.0	6.8
ACT	710	511	199	28.0	1.2
TAS	228	116	112	49.1	0.7
NT	79	57	22	27.8	0.1
Australia	17,003	6,517	14,084		

Summary:

- 14,082 unique publications from a single state only, or 82.8% of all unique pubs.
- 2,919 unique publications are from more than one state, or 17.2% of all unique pubs; there is an average of 2.23 (6,517/2,919) states/pub for these 2,919 pubs.

Thus, NSW is allocated 6,452 publications in this study, of which 4,696 (72.8%) are not shared with other states. The latter make up 27.6% of all Australian publications.

It is of value to gauge the 'integrity' of the literature allocated to each state prior to making comparisons. A good measure of this is the percentage of those publications allocated to a state which are produced by authors affiliated only with that state. Table 2A provides this measure in column 5, for the total literature 1999-2006. Values range from 72.8% for NSW to only 27.8% for NT. That is, while c.73% of the publications allocated to NSW are produced exclusively from that state, only 28% of the publications allocated to NT or ACT are produced there alone. It seems safe to regard the literatures of at least the four largest producing states -- NSW, VIC, QLD, and SA -- as reasonably independent units for analysis. With care, this assumption may be extended to WA, but scarcely to ACT, TAS or NT. As defined here, the literatures of NT and ACT are principally cross-state composites. Table 2B

in the appendix provides the yearly numbers of publications with collaborations over each of the states.

Each state's share of the Australian output of cancer-related publications

Tables 3A and 3B (see Appendix) list the number and percentage of publications in cancer-related research as allocated to each Australian state, by year and in toto for the period 1999-2006.

Over the whole period, NSW and VIC are the predominant producers of cancer-related publications in Australia, with each state producing a little less than one-third of the national output. NSW with 31.3% slightly exceeds VIC with 30.2%, i.e. by only 1.1% of the national output. The next most productive states are QLD, producing 15.3% of the national output, and WA and SA, each producing slightly over 9%.

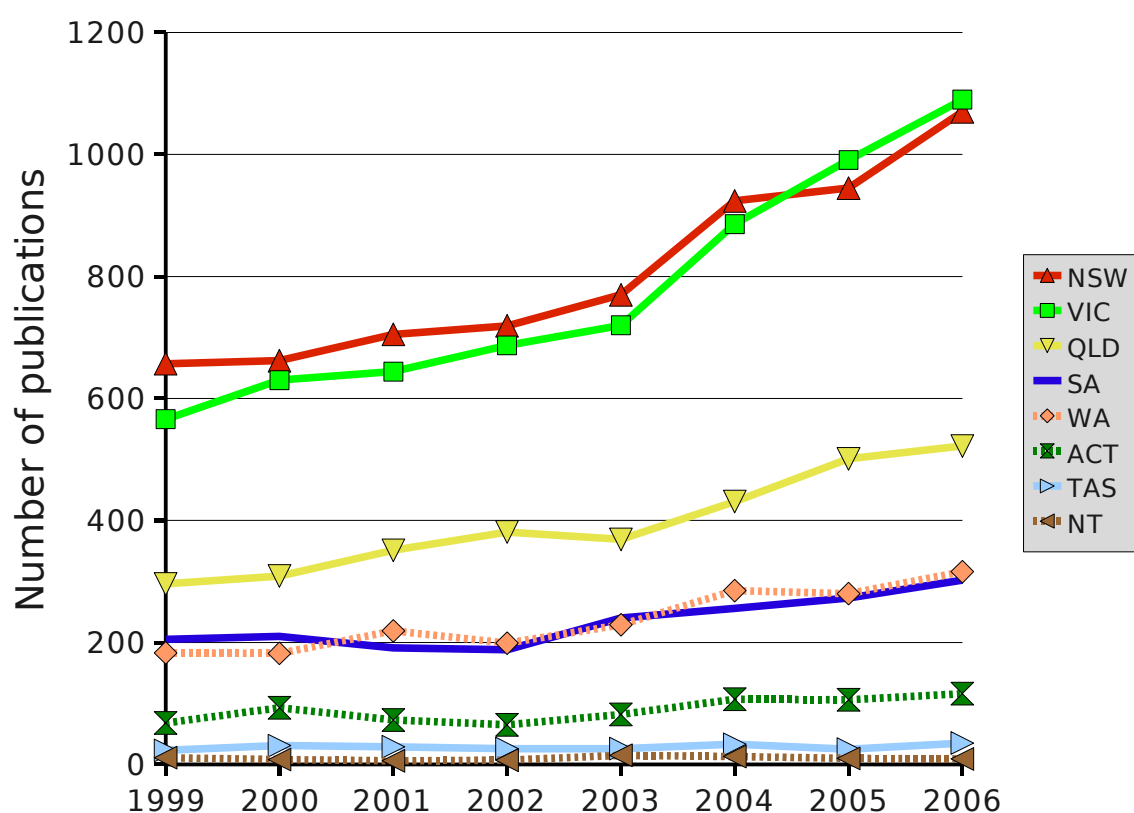


FIGURE 1A: The number of publications on cancer for the years 1999-2006 for the eight Australian states, according to SCI-SSCI.

Figure 1A and 1B display the data in Tables 3A and 3B -- the number and percentage of publications in cancer-related research as allocated to each Australian state -- plotted against year through the period 1999-2006.

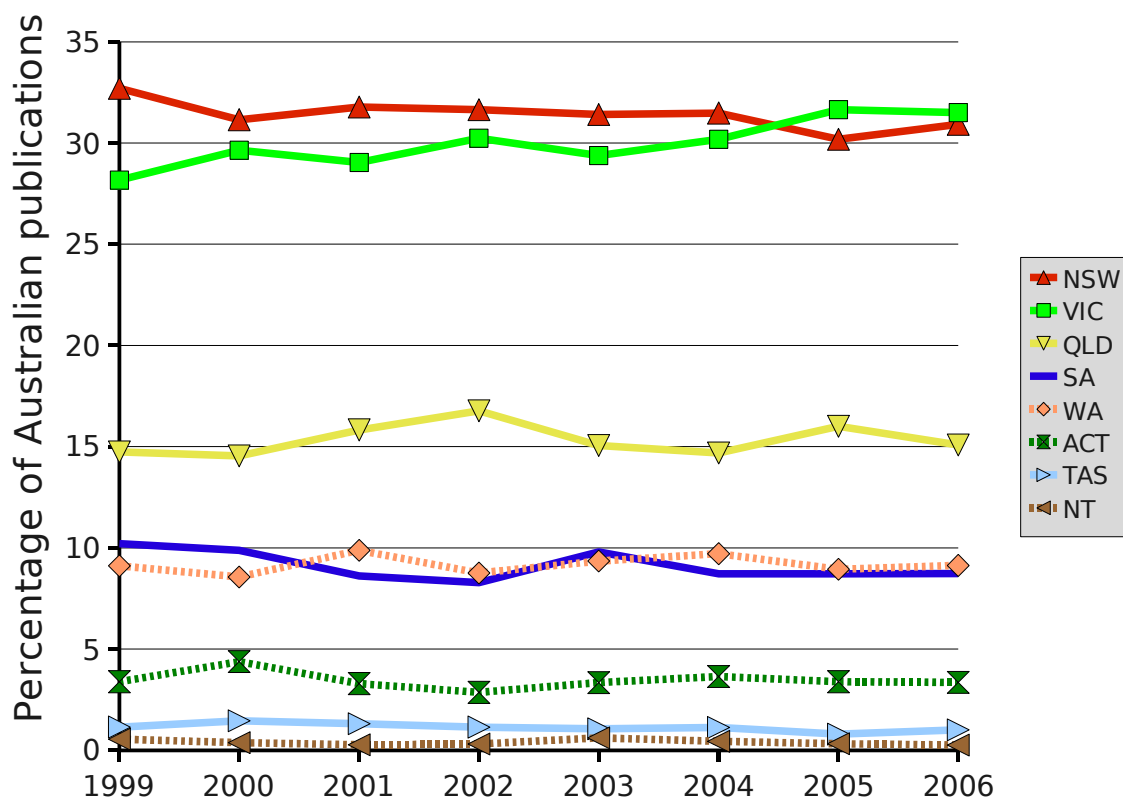


FIGURE 1B: The percentage of publications on cancer for the years 1999-2006 for the eight Australian states, according to SCI-SSCI.

The annual output of publications from the more productive states roughly follows the national and world-wide trend noted above: a moderate growth from 1999 to 2003 and a surge in 2004 and 2006. In general the percentage of the national annual output has remained steady across most states. Of most interest here is the greater number and growth in the annual publication output from NSW vis-à-vis VIC from 1999 to 2004; however in 2005 and 2006 VIC has assumed the lead over NSW, albeit by a slim margin. It would be interesting to see if the trend continues in annual publications from 2007 onward.

Mean Impact Factor for each state's cancer-related publications

Table 4 lists the mean IF -- a measure of publication quality -- for the publications in cancer-related research of each Australian state, by year and in toto for the period 1999-2006. (More extensive data are provided in the Appendix, Table 4 Part 1 and Part 2; these show the number and percentage of journals that could not be assigned an IF from the appropriate *JCRs*). The data in Table 4 are displayed in Figure 2. Here the annual range of mean IFs for each state is shown as vertical bars, with the eight-year mean shown as arrow points. Thus, we find that mean IFs for the eight-year period decline from 4.42 for VIC to 1.92 for NT. The value of most cross-state comparisons of these statistics is weakened by the considerable variation in the annual values.

TABLE 4: Mean Impact Factor for publications on cancer for years 1999-2006 for each Australian state; publications from SCI-SSCI, Impact Factors from JCRs.

Year	NSW	VIC	QLD	SA	WA	ACT	TAS	NT	Australia
1999	3.12	3.94	3.45	3.72	3.96	3.41	1.91	2.13	3.45
2000	3.40	3.88	3.45	3.45	3.82	3.31	3.48	3.41	3.45
2001	3.40	3.93	3.67	3.54	4.38	3.73	3.26	0.49	3.40
2002	3.69	4.43	3.73	3.48	4.08	3.53	2.87	1.03	3.77
2003	4.03	4.44	3.86	3.49	4.38	4.41	2.27	1.68	3.98
2004	4.08	4.61	3.78	3.37	4.15	3.92	4.42	1.62	4.06
2005	4.38	5.17	4.29	4.29	5.02	4.15	4.44	2.78	4.51
2006	4.45	4.95	4.55	4.16	4.90	4.14	4.64	2.22	4.58
8-yr period	3.82	4.42	3.85	3.69	4.34	3.83	3.41	1.92	3.90

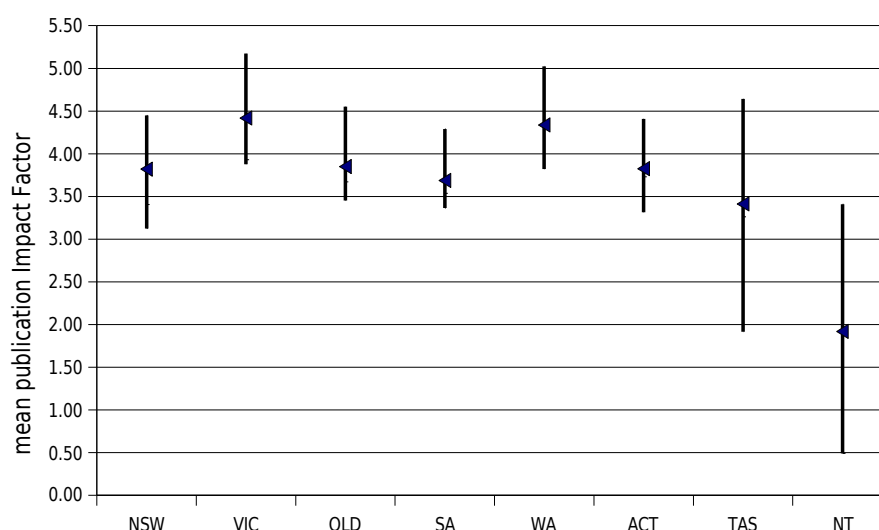


FIGURE 2: Mean Impact Factor (IF) for publications on cancer for years 1999-2006 for each Australian state. The mean 8-yr IFs are shown by arrow head, and the range of annual mean IFs by vertical bars. (Based on Table 4).

The comparison of NSW and VIC, is of most interest. VIC's mean IF not only exceeds that of NSW overall (4.42 vs 3.82), it exceeds NSW for each year of the study: the maximum annual mean IF for VIC's publications is highest (5.17) in 2005 while that of NSW is 4.38 in the same year. We also note that VIC's 8-year mean IF lies above the national average of 3.90, while that of NSW lies below it. However, NSW's mean IFs have been increasing slowly each year while those of VIC's have been somewhat erratic. WA with an 8-year mean IF of 4.34 and QLD with 3.85 are worth mentioning and possibly observing in future studies.⁹

⁹ It is worth noting that in general, IFs (a measure of 'use' or 'citations to' journals) for many journals have risen annually; for example, in 1999 the highest IF is 47.56 and in 2006 it has risen to 63.34. The literature of IFs in a variety of scientific disciplines also support the continual increase in journal Impact Factors through time.

Frequency distribution of mean Impact Factor for NSW, VIC and QLD

The finding in the section above -- that over the period 1999-2006 the cancer-related publications of NSW have an appreciably lower mean IF than those of VIC -- deserves further analysis. For example, one might question whether the mean is an appropriate statistic to describe the underlying distributions; perhaps the value for VIC is elevated each year by a few publications from an eminent group in a very high IF journal. Accordingly, the full distributions used to calculate the mean IFs for NSW and VIC, and additionally QLD, were investigated for two years, 1999 and 2006. Table 5 in the Appendix gives both the number and the percentage of publications at each IF value, when these are grouped into successive intervals of 1.000 unit up to an IF of 7.000. (*JCRs* give journal IFs to 3 decimal places). The modes, medians and means of the six distributions, as well as their maximum IF values, are also given. Figure 3 displays the percentage distribution data of Table 5.

In Figure 3, the highly skewed nature of the grouped IF distributions is apparent. However, it is also apparent that the means do adequately represent the 'central tendency' of the underlying distributions for our present purpose. Table 5 shows that although the mode for both NSW and VIC in 1999 and 2006 are the same (0.5 and 2.5 respectively), the median and mean are appreciably higher for VIC than for NSW; for example, in 1999 for NSW, the median is 2.0 and the mean 3.1 while for VIC it is 2.5 and 3.9 respectively. And from Figure 3 it is clear that each distribution for NSW is displaced to lower IF values than its VIC counterpart. Table 5 also shows that compared to VIC and QLD, both in 1999 and 2006, NSW consistently had higher percentages of its publications in the lower IF ranges of 0 to 4 (78.6% in 1999 and 63.6% in 2006) and therefore, lower percentages of its publications in the higher IF ranges of > 4 (21.5% in 1999 and 36.4% in 2006). VIC had 71.9% (in 1999) and 55.8% (in 2006) of its publications in the 0 to 4 IFs, and the previous 28.1% (in 1999) and 44.2% (in 2006) in the IF ranges of > 4. Thus, the finding in the section above -- that that over the period 1999-2006 the cancer-related publications of NSW have appreciably lower IFs than those of VIC -- is supported by closer analysis.

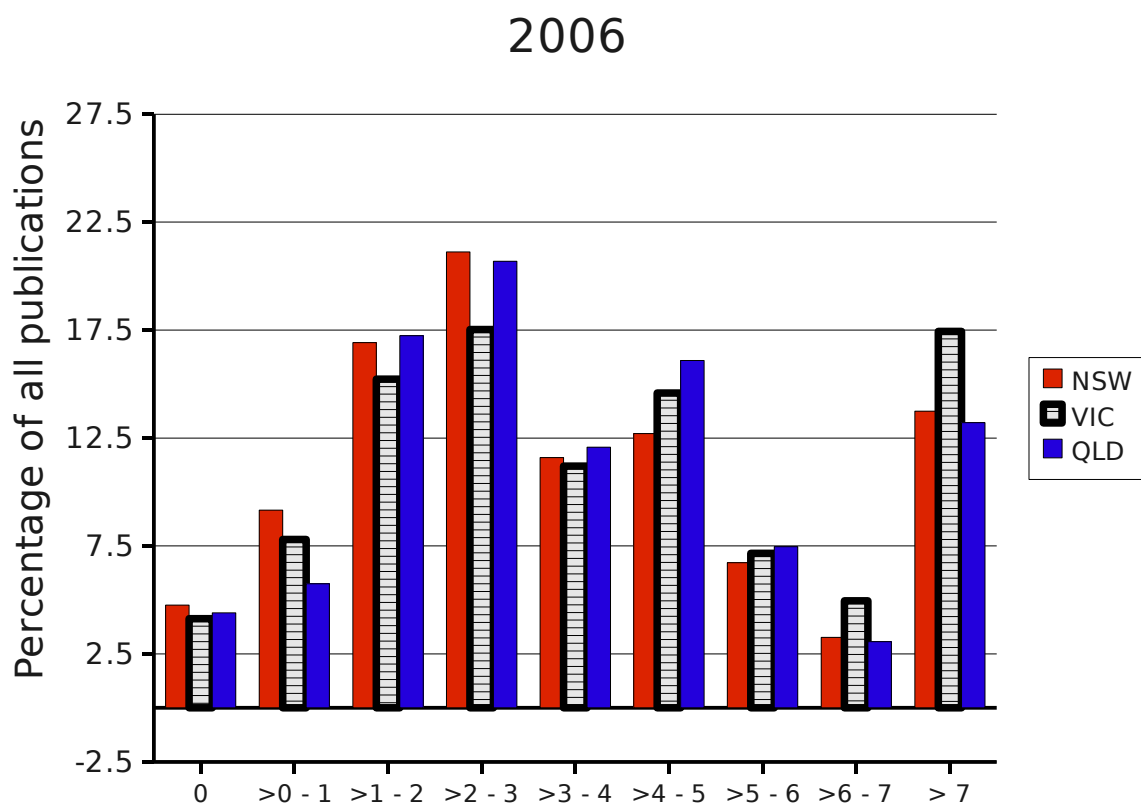
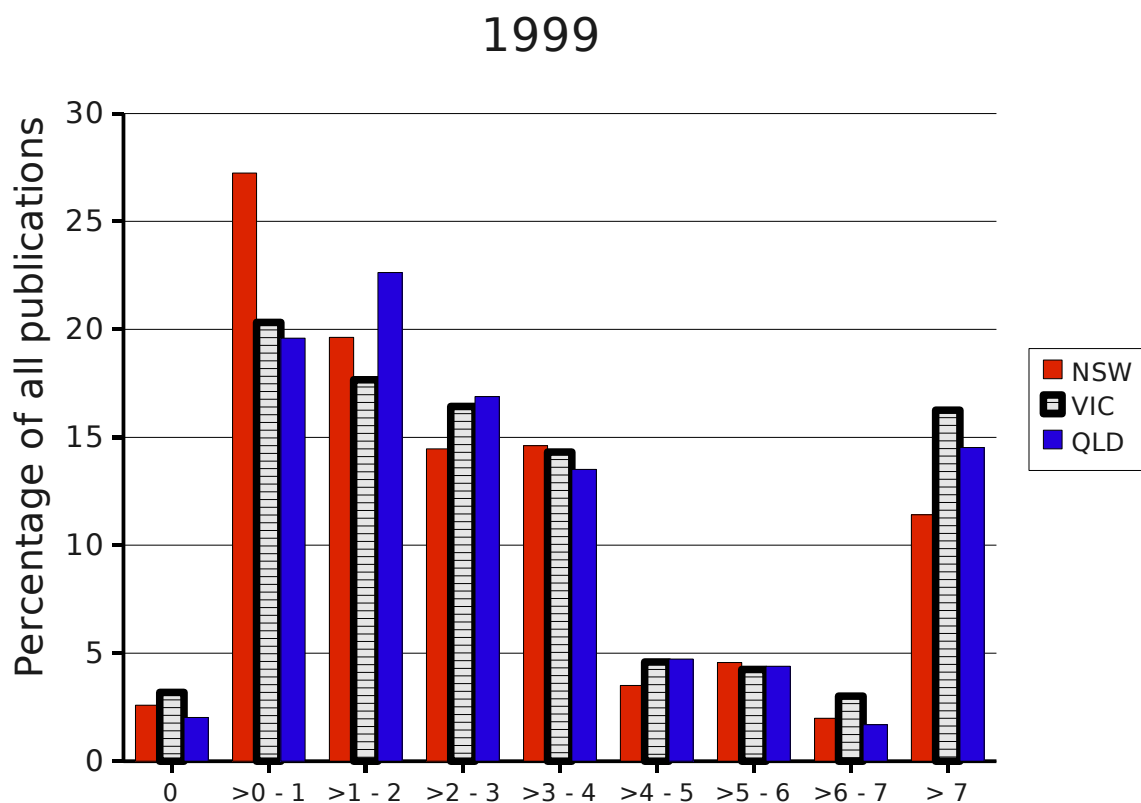


FIGURE 3: The distribution of the percentage of publications versus the mean publication Impact Factor, for 1999 (above) and for 2006 (below), for three states: NSW, VIC and QLD. (Based on Table 5 in the Appendix).

International collaboration in each state's cancer-related publications

The following results are based on the Table 6 series in the Appendix, which include similar tables for the international collaboration as Wilson & Pittman (2000). As Tasmania and the Northern Territory have very low total numbers of international collaborations those two states have been omitted from this part of the analysis.

The top five collaborating countries for each state for the eight-year period are visualised in Figure 4. As can be seen the USA is the most popular international collaboration partner for all states but the percentage of collaboration with the USA for NSW, is lower than for all five states, especially VIC. However, for England, the second most common partner for all six states the picture is different, with NSW showing a higher rate of collaboration than VIC. Australia's third and fourth most important international partners are Germany and Canada; whereas Germany shows slightly higher collaboration rates than Canada for all state with the exception of WA.

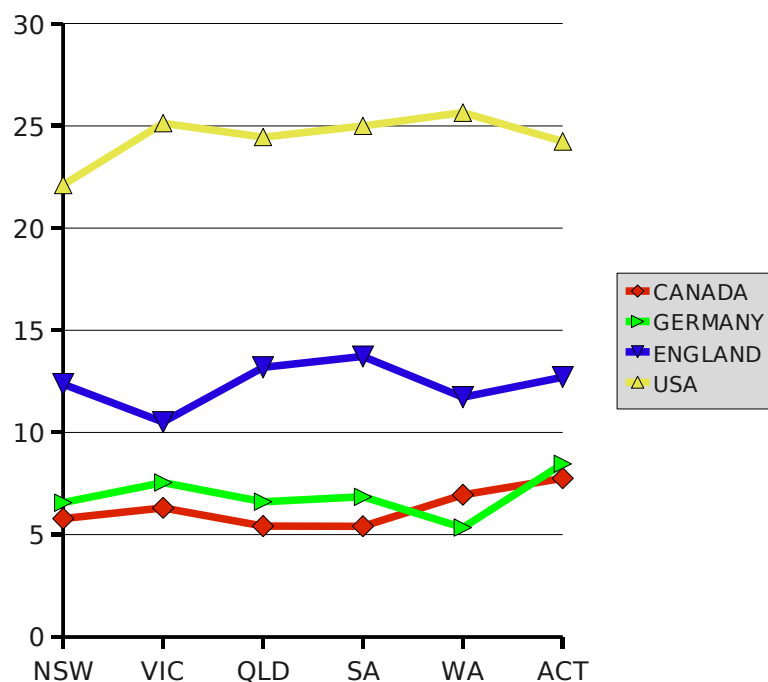


Figure 4: Percentage of international collaboration for the four collaborating countries: USA, England, Germany and Canada.

Regarding the number of international collaborations for each Australian state for the years 1999 to 2006; the collaboration for partners from one country was just counted once. However, if partners from more than one country were involved this publication would get more than one count to reflect the higher degree of internationalization for this publication. Figure 5 show the total number of international collaborations for the eight-year period and the number of international partners from different countries per 100 publications. As can be seen in Figure 5A the total number of international collaborations increased over the time period for all states; NSW was ahead of all other states for most of the years, except for 2004 and 2005 when VIC showed higher total numbers.

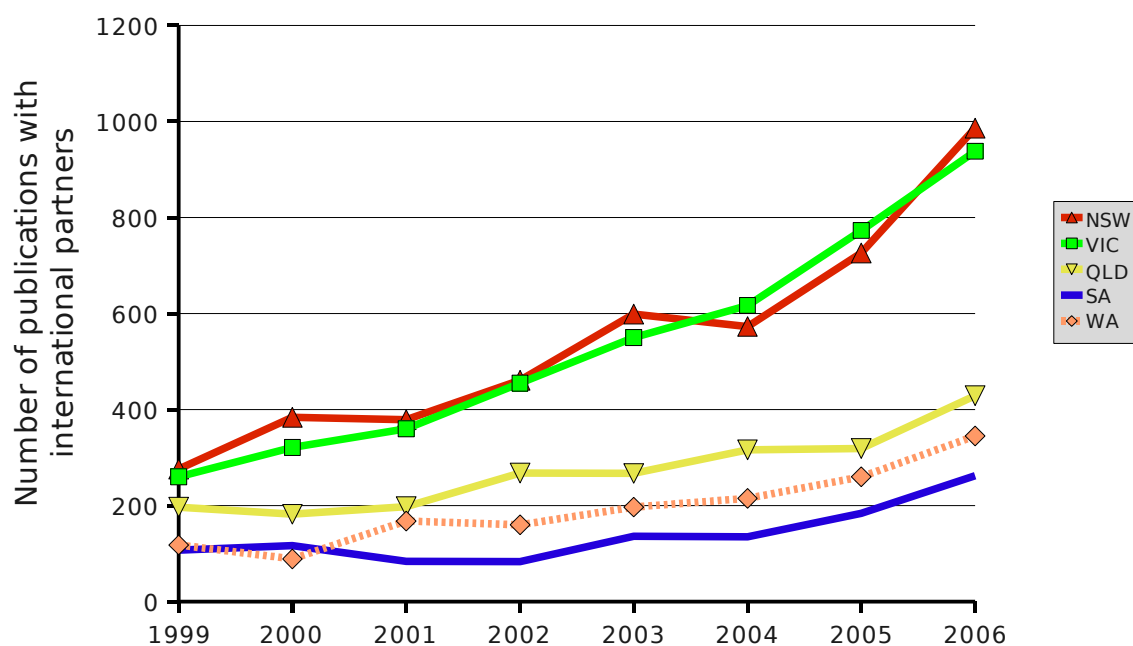


Figure 5A: Total number of international collaborations for the years 1999 to 2006.

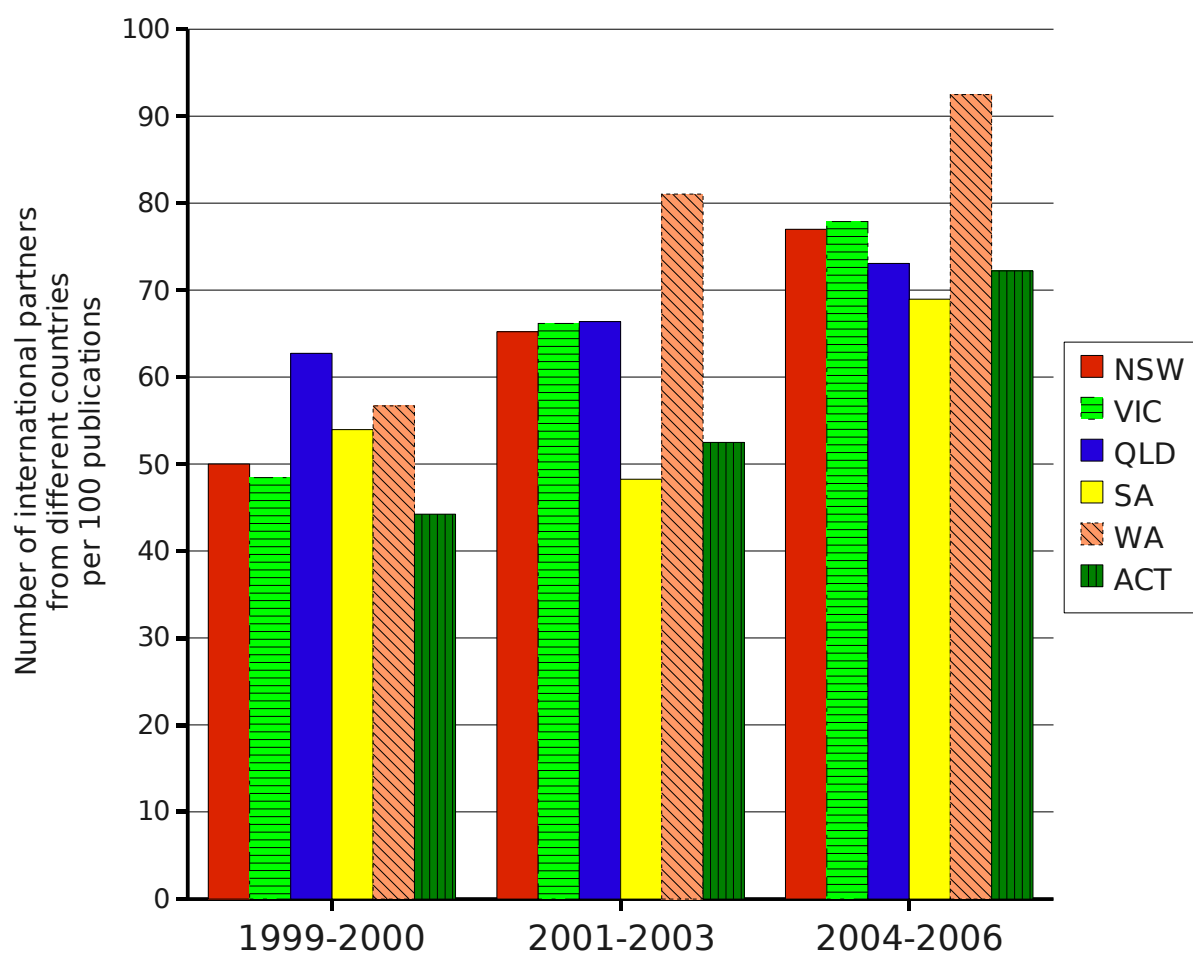


Figure 5B: Average number of international partners from different countries per 100 publications for the three time periods: 1999-2000; 2001-2003; 2004-2006.

In Figure 5B shows a somewhat more erratic pattern over the time, indicating that even though the total number of international collaborations is increasing for all states, the ratio of international partners over all publications by a state is not growing at a constant rate. However, in this Figure the trend towards further internationalization of cancer research is even more eminent, as the number of international partners per 100 publications is constantly growing. The state with the highest degree of internationalization is clearly WA, which in 2004-2006 reached a level where nearly every publication had international partners. NSW and VIC, both starting on a relatively low level of international collaboration in 1999 -2000 (about 48%), managed to increase their level of international collaborative research to about 80% during 2004-2006.

Summary of main results section I

- Australia's annual output of cancer-related publications increased by 70.4% from 1999-2006, while the World's output increased just by 42.5%. Throughout this period, Australia's share of the world output increased from 2% to 2.4%.
- Of the Australian cancer-related publications allocated to NSW and VIC, 72.8% and 71.2% respectively were produced by that state alone. The remainder are shared with (on average) 1.2 other states.
- NSW produced the greatest number of cancer-related publications in the eight-year period, 31.3% of the Australian output, while VIC was second with 30.2%. From 1999 to 2004 NSW was slightly ahead from 4.5% to 1.3%; in 2005 and 2006 VIC had a slight edge.
- The quality of NSW's cancer-related publications, as measured by the mean publication Impact Factor, was lower than VIC's for the eight-year period (3.82 vs 4.42). NSW's mean annual IF is also lower than that of VIC's for each year of the study: the maximum annual mean IF for NSW's publications is 4.45, while the maximum annual mean IF for VIC's publications is 5.17
- Close analysis of the distributions of publication frequency over IF for NSW and VIC for 1999 and for 2006 confirms the previous conclusion that over the period 1999-2006 the cancer-related publications of NSW have appreciably lower IFs than those of VIC.
- The quality of NSW's cancer-related publications, as measured by the several indices of international collaboration, showed that NSW is near parity with VIC unlike the earlier report by Wilson & Pittman (2000) which showed NSW well below VIC in the period 1994 to 1998. However, both states differ in their choice of international partners, with NSW having a tendency to collaborate more with England and VIC more with the USA.

II. Analysis of cancer publications in relation to medical publications from Medline

In order to compare Cancer Research to all Medical Research output it is important to use Medline as reference database to all Medical output. Therefore the following section will make use of Medline to draw a picture on all Medical Research.

Australia's share of the World output of publications in medicine and on cancer

Medicine: Table 7A lists the number of publications in medicine (according to *Medline*), both for Australia and for the World, by year and in toto for the period 1999-2006. The data show steady growths in both the Australian and World annual outputs over the whole period: in Australia's case an annual average of 7.7%, and in the World's of 5.2%.¹⁰ Consequently, Australia's share of the World output has increased slightly from 1.7% to 2.0%, averaging 1.8% over the eight-year period.

TABLE 7A: The number of publications in medicine for the years 1999-2006 both by Australian researchers and in the World, according to Medline.

Year	No. pubs. Australia	No. pubs. World	Australia's share (%)
1999	7,738	462,661	1.7
2000	8,351	490,715	1.7
2001	9,240	519,734	1.8
2002	9,571	542,150	1.8
2003	10,277	568,844	1.8
2004	11,212	602,285	1.9
2005	11,936	637,393	1.9
2006	13,016	657,964	2.0
8-yr period	81,341	4,481,746	1.8

Cancer compared to all medicine: Table 7C gives the percentage of publications in medicine that are on cancer, both for Australia and for the World, by year and in toto for the period 1999-2006. That is, Table 7C compares Table 7B (see Appendix) with Table 7A. For the World, the proportion of the medical literature devoted to cancer slightly dropped through this period from 18.5% to 17.4%, while for Australia the proportion dropped almost 2% from 15.5% to 13.7%. On average 18% of the world's output in medical literature was related to cancer, while the share for Australia was 14.5%

¹⁰The annual average was calculated by dividing the number of publications from the previous year by the number of publications from the following for every year in the whole time period and then averaging the growth rates over all years.

TABLE 7C: Publications on cancer as a percentage of publications in medicine, for the years 1999-2006, both by Australian researchers and in the World. (Based on Tables 7A and 7B.)

Year	Australia [cancer / medicine] (%)	World [cancer / medicine] (%)
1999	15.5	18.5
2000	14.9	18.5
2001	15.3	18.1
2002	15.1	18.0
2003	14.0	18.2
2004	14.5	17.9
2005	13.8	17.9
2006	13.7	17.4
8-yr period	14.5	18.0

Each state's share of the output of publications in medicine and on cancer

For *Medline* only two different states at most are listed in the address fields of publications. Thus, publications which according to *SCI-SSCI* are from three or more states are allocated differently here from the allocation for the *SCI-SSCI* analyses. However, as the distributions of states over publications for the literatures from *Medline* is similar to that for the cancer-related literature from *SCI-SSCI*, the effect of this difference will be slight, especially for the states with high output (NSW, VIC, QLD, and SA); for *SCI-SSCI*, fewer than 3.0% of Australian publications are produced by three or more states. In total, 81,341 unique publications on medicine were allocated 86,492 times (see Table 7A and 8A), and 11,800 unique publications on cancer were allocated 12,521 times (see Tables 7B and 9A).

As may be seen from Figures 6A and 6B *in general* the annual output of publications from each state has grown moderately through the period. NSW and VIC each account for slightly less than one-third of the national output. Of most interest for NSW is the fact that its share of the nations research output has slightly decreased from above 30% in the first two years to just under 29% in 2006, by 2006 VIC's output has surpassed NSW just slightly over 29%. During the same time QLD managed to increase its share by over 2% from 13.4% to 15.7% of Australian publications in medicine.

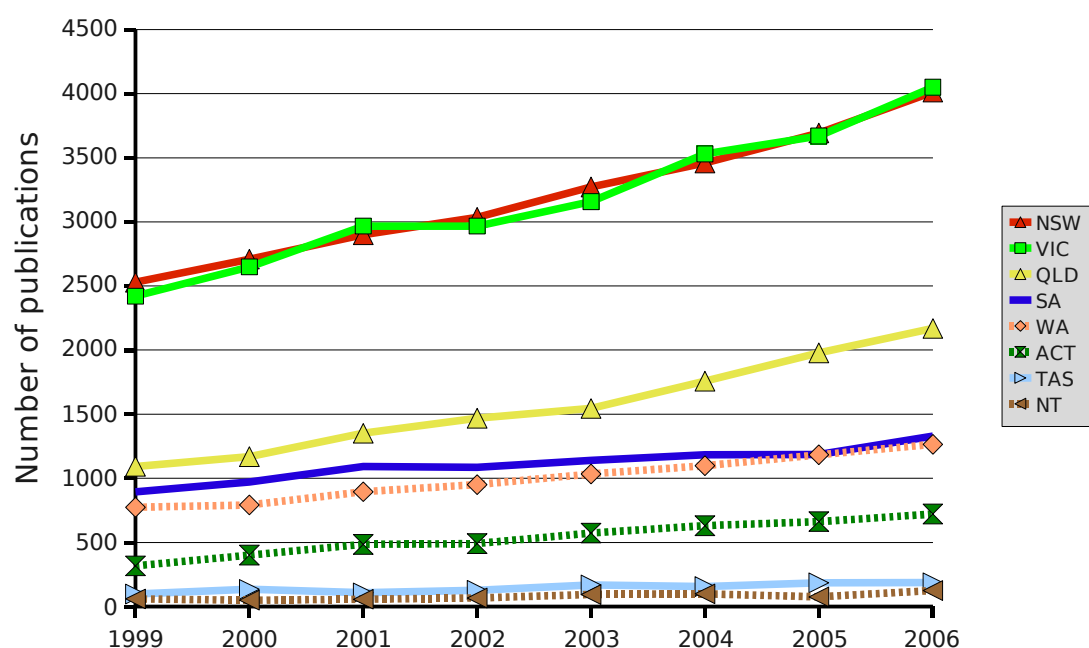


FIGURE 6A: The number of publications in **medicine** for the years 1999-2006 for the eight Australian states, according to *Medline*. (Based on Table 8A).

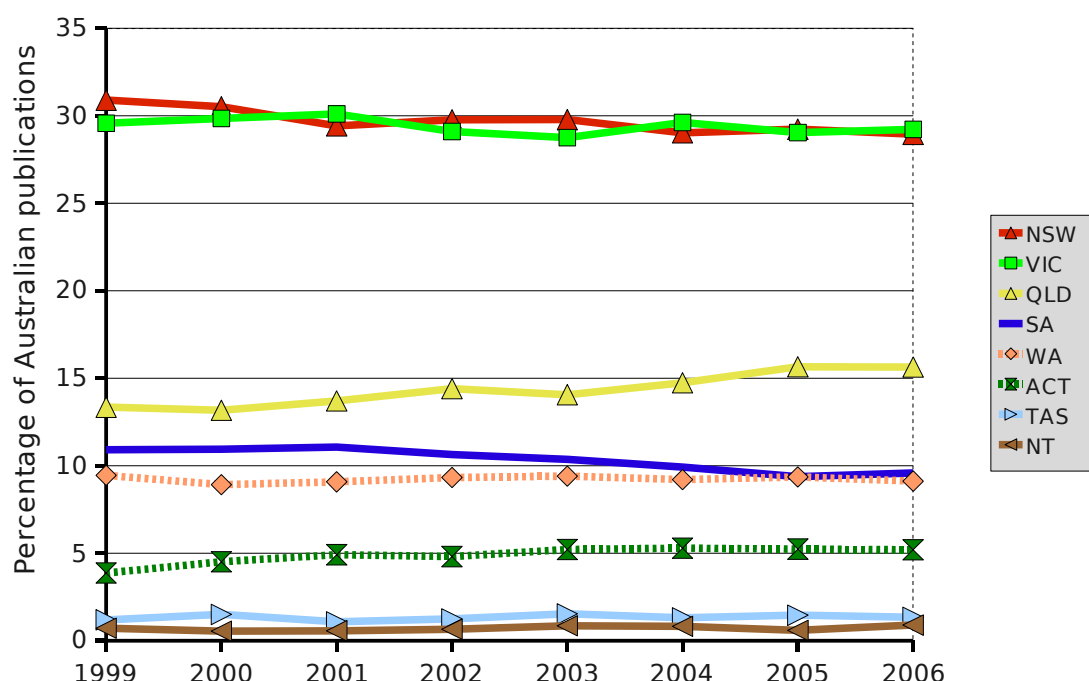


FIGURE 6B: The percentage of Australian publications in **medicine** for the years 1999-2006 for the eight Australian states, according to *Medline*. (Based on Table 8B).

For cancer: As may be seen from Figures 7A and 7B (as well as Tables 9A and 9B), in general the annual output of publications from each state has grown over the whole period. The results for the leading states, NSW and VIC, are of most interest. (These two states each account for nearly one-third of the national output). VIC displayed a greater growth in its annual output than NSW, surpassing NSW as Australia's leading producer of publications on cancer in 2005 and 2006. In 1999, NSW accounted for 32.8% of the national output, and VIC 29.4%; but in 2006 the positions had reversed, with VIC accounting for 33.2% of the

national output, and NSW 30.9%. Over the whole eight-year period, NSW produced 32.2% of Australian publications on cancer, while VIC produced 31.0%.

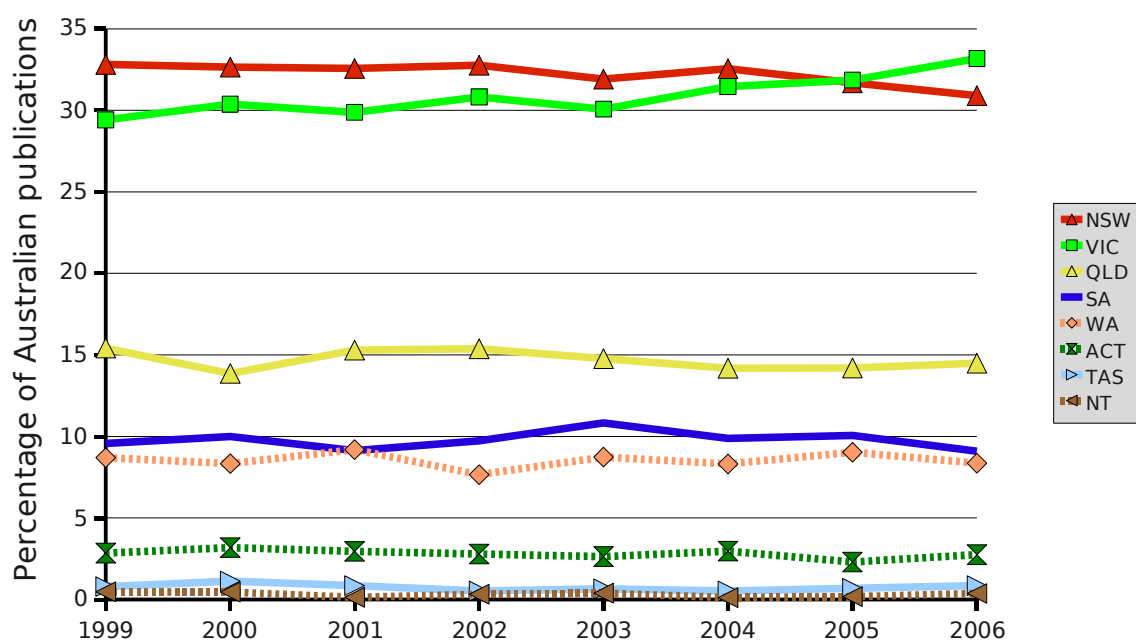


FIGURE 7A: The number of publications on **cancer** for the years 1999-2006 for the eight Australian states, according to *Medline*. (Based on Table 9A).

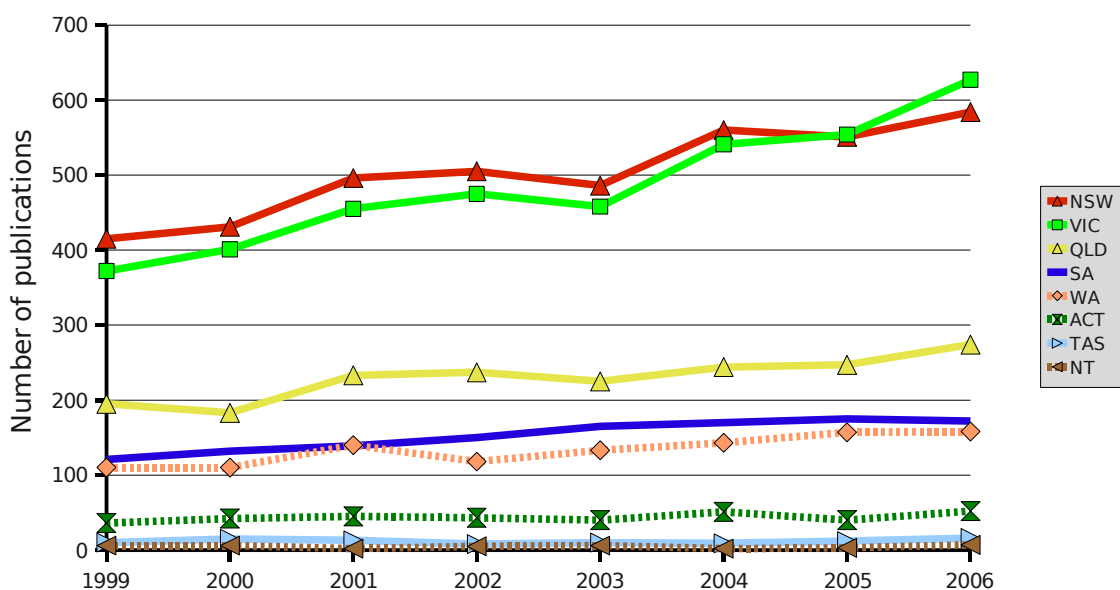


FIGURE 7B: The percentage of Australian publications on **cancer** for the years 1999-2006 for the eight Australian states, according to *Medline*. (Based on Table 9B).

Cancer compared to all medicine: Table 10 compares the number of publications on cancer allocated to each Australian state, by year and in toto for the period 1999-2006, with similar data for the whole field of medicine. That is, it expresses data from Table 8A as a percentage of the appropriate data in Table 9A. Interestingly, for the whole eight-year period the percentage of cancer publications on all medical publications is decreasing for all states, except for VIC.

TABLE 10: Publications on cancer as a percentage of publications in medicine, for the years 1999-2006, allocated for each Australian state.
(According to *Medline*; based on Tables 8A and 9A.)

Year	NSW (%)	VIC (%)	QLD (%)	SA (%)	WA (%)	ACT (%)	TAS (%)	NT (%)	Total allocation (%)
1999	16.4	15.4	17.8	13.5	14.2	11.4	10.2	10.2	15.5
2000	15.9	15.1	15.7	13.6	13.9	10.5	11.2	12.2	14.9
2001	17.1	15.3	17.2	12.7	15.6	9.3	12.1	3.5	15.5
2002	16.6	16.0	16.1	13.8	12.4	8.8	6.3	7.5	15.1
2003	14.9	14.5	14.6	14.5	12.9	7.0	5.9	6.4	13.9
2004	16.2	15.3	13.9	14.4	13.0	8.1	5.8	2.0	14.4
2005	14.9	15.1	12.5	14.8	13.3	6.0	6.5	3.9	13.8
2006	14.6	15.5	12.6	12.9	12.5	7.2	8.6	5.6	13.6
8-yr period	15.7	15.3	14.7	13.8	13.4	8.2	8.0	5.9	14.5

Mean Impact Factor for each state's publications in medicine and on cancer

As noted in the Methodology section, a number of publications in *Medline* occurred in 'journals' which could not be matched with the c.7000 journals listed in the annual *JCRs*. (The percentages of these 'journals' in each sub-collection for analysis are given in Appendix Tables 11 and 12.) These publications could not be assigned measured IFs, but using previously explained assumptions, were assigned an IF of zero.

For Medicine: Table 11 (see Appendix) lists the mean IF for the publications in **medicine** from each Australian state, by year and in toto for the period 1999-2006. The data in Table 11 are displayed in Figure 8. The annual range of mean IFs for each state is shown as vertical bars, with the eight-year means shown as arrow heads. However, it should be noted that cross-state comparisons of these statistics are useful only where there is little variation in the annual values; in the present case, the rankings of ACT, TAS and NT are insecure.

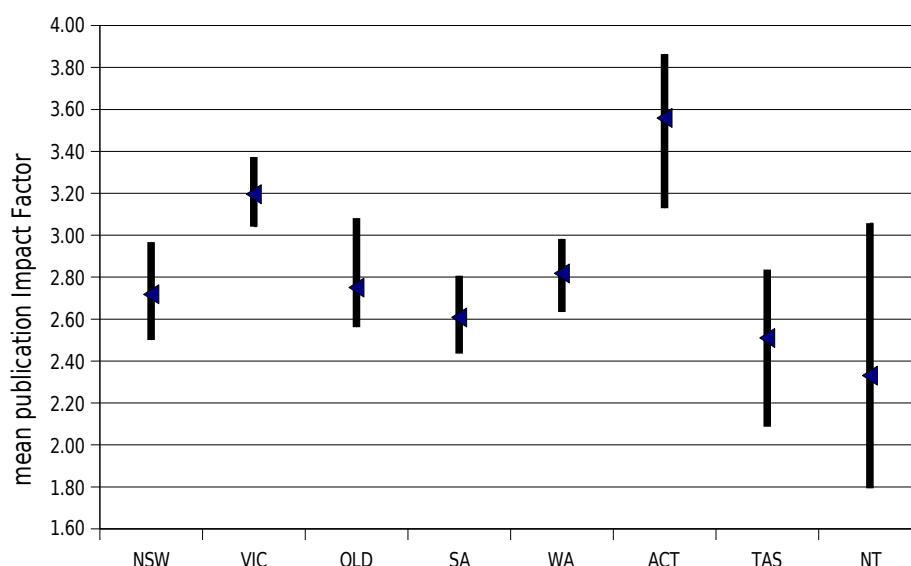


FIGURE 8: Mean Impact Factor (IF) for publications on medicine for years 1999-2006 for each Australian state. The mean 8-yr IFs are shown by arrow head, and the range of annual mean IFs by vertical bars. (Based on Table 11).

Of most interest is the comparison of NSW and VIC. VIC's mean IF not only exceeds that of NSW overall (3.20 vs. 2.72), it exceeds NSW's for each year of the study: the minimum annual mean IF for VIC's publications is 3.04 while the maximum value for NSW's publications is 2.97. We might also note that VIC's eight-year mean IF lies above the national average of 2.88, while that of NSW lies below. The data also reveal a moderate rising trend in NSW's annual IFs, and an erratic and smaller rising trend in VIC's annual IFs.

For Cancer: Table 12 (see Appendix) lists the mean IF for the publications in **cancer** from each Australian state, by year and in toto for the period 1999-2006. Figure 9 displays the data in Table 12, using the conventions and caveat on cross-state comparisons described above for Figure 8.

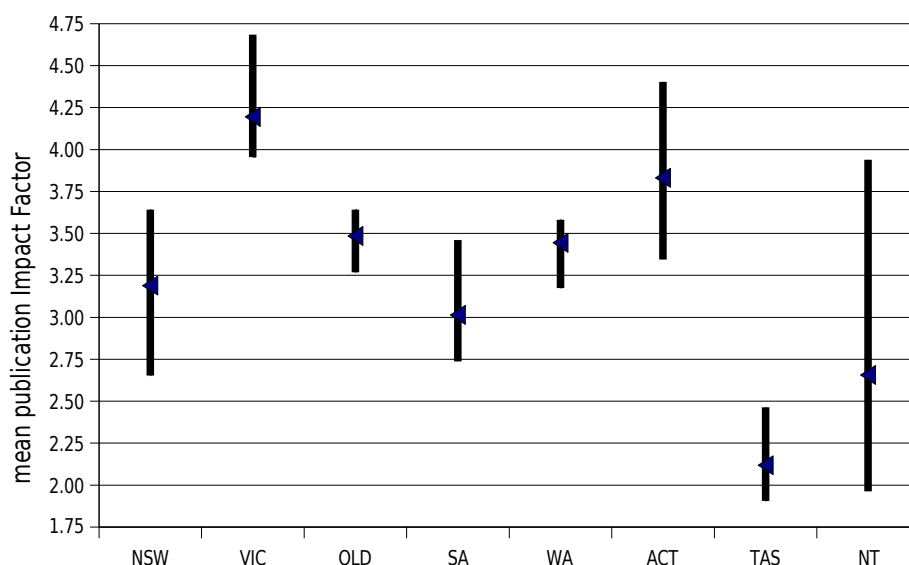


FIGURE 9: Mean Impact Factor (IF) for publications on cancer for years 1999-2006 for each Australian state. The mean 8-yr IFs are shown by arrow head, and the range of annual mean IFs by vertical bars. (Based on Table 12)

Again the comparison of most interest is that of NSW vs. VIC. VIC's mean IF considerably exceeds that of NSW overall (4.19 vs. 3.19); it also exceeds NSW's for each year of the study: the minimum annual mean IF for VIC's publications is 3.96 while the maximum value for NSW's publications is 3.42. We might also note that VIC's eight-year mean IF lies above the national average of 3.54, while that of NSW lies below. While VIC's IFs are erratic, NSW's and Australia's in general follow a steady upward trend.

Cancer compared to all medicine: Figure 10 compares the mean IFs of publications in **medicine** with those of publications on **cancer**, for each Australian state for the eight-year period 1999-2006. That is, it combines Figures 8 and 9, which are in turn based on data listed in Tables 11 and 12. The conventions and caveat on cross-state comparisons described above for Figure 8 apply. Also the caveat must be extended to medicine-cancer comparisons within states.

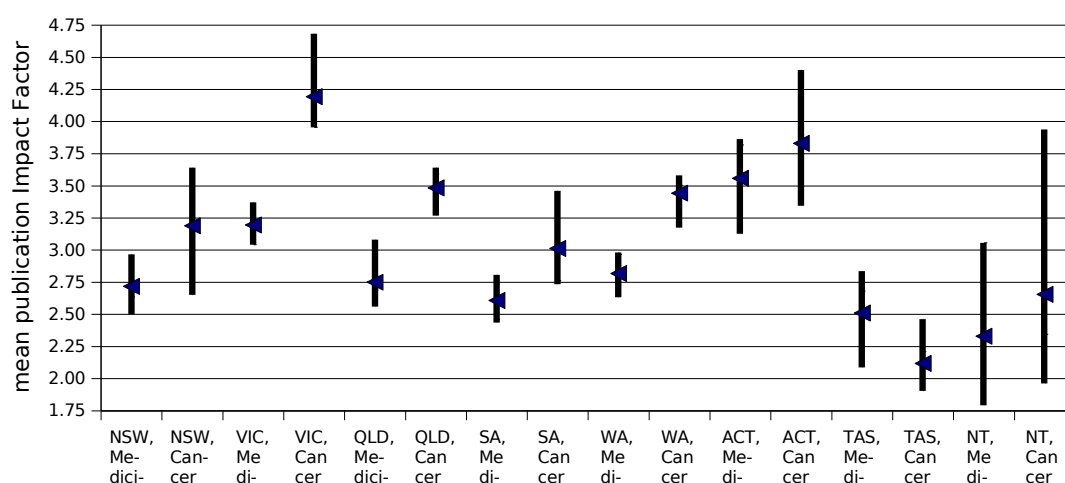


FIGURE 10: Comparison of mean Impact Factors for years 1999-2006 for each Australian state. For medical publications (left) vs cancer publications (right), from *Medline* and *Cancerlit*. (Based on Figures 6 and 7).

It is striking, that generally within each state, with exception from TAS, the cancer literature has a higher mean IF than does the whole medical literature. This is especially evident for VIC, QLD, SA, and WA, where there is little or no overlap in the annual IF ranges. For VIC (for example) the mean IFs for the cancer literature and the medical literature are 4.19 and 3.20, respectively; the minimum annual mean IF for the cancer literature is 3.96 while the maximum value for the medical literature is 3.37. However, for NSW the IF ranges for medicine and cancer show a clear overlap.

Summary of main results section II

- Both the Australian and World annual output of publications in **medicine** grew appreciably from 1999 to 2006 (by annually 7.7% and 5.2%, respectively). Australia's share of the World output increased from 1.7% to 2.0%, averaging 1.8% over the eight-year period.
- In the same period, the Australian annual output of publications on **cancer** also grew, however, at a smaller rate than all of medicine. The same pattern appeared for the World output as well. Average annual growth rates for Australia and the World were 5.9 and 4.2 respectively.

- The proportion of the medical literature devoted to **cancer** decreased steadily through this period: for the World from 18.5 to 17.4 and for Australia from 15.5 to 13.7.
- NSW and VIC each account for slightly less than one-third of the national output of publications in **medicine** in the period 1999 to 2006. VIC displayed greater growth in annual output than NSW, to move from second position in 1999 to first in 2006. For the whole eight-year period: NSW produced 29.6% of the national output of publications in medicine while VIC close behind produced 29.4%.
- NSW and VIC each account for nearly one-third of the national output of publications on **cancer** in the period 1999 to 2006. Once again VIC displayed greater growth in annual output than NSW, to move from second position in 1999 to first in 2005 and thereafter. For the whole eight-year period NSW produced 32.2% of the national output of publications on cancer whereas VIC produced 31.0%.
- For the whole eight-year period, the proportion of medical publications dealing with **cancer**, is decreasing for all states except for VIC, which managed to maintain a constant level of about 15.3%. For NSW the rates dropped from 16.4% in 1999 to 14.6% in 2006. The average over the eight-year period is 15.7%, which is slightly higher than the rate for VIC.
- VIC's mean IF for publications in **medicine** not only exceeds that of NSW overall (3.20 vs. 2.72), it exceeds NSW's for every year of the study. While VIC's eight-year mean IF lies above the national average of 2.88, that of NSW lies below it. There is an moderate rising trend in NSW's and VIC's annual IFs, albeit higher for NSW.
- VIC's mean IF for publications on **cancer** considerably exceeds that of NSW overall (4.19 vs. 3.19); it also exceeds NSW's for each year of the study. While VIC's eight-year mean IF lies above the national average of 3.54, that of NSW lies below it. There is a consistent rise in both NSW's annual IFs through the period.
- The cancer literature has a higher mean IF than does the **medical** literature within each state for the eight-year period 1999-2006, except for TAS. This difference is considerably lower for NSW (3.19 and 2.72, for cancer and medical publications, respectively) than for VIC (4.19 and 3.20).

III. Analysis of cancer publications by body region, from 1999 to 2006

The following section will give an overview of cancer research on different Clinical Groupings for Australia, the World and the most productive Australian States. It is important to note that because of the method used for data gathering the comparison of Clinical Groupings with each other is limited. Therefore comparison should mainly be drawn between the different entities (e.g. Australia vs the World) within one Clinical Grouping.

Australian research output on Clinical Groupings compared to the world

This section will focus on SCI-SSCI data; however, Tables 15 – 18 in the Appendix contain results obtained from the Medline database. Tables 19 – 22 pertain to results from SCI-SSCI only, while the remaining Tables (23 – 29) for this section combines Medline and SCI-SSCI with overlapping publications counting only once. Further, only the three (NSW, VIC and QLD) most productive states are analyzed by Clinical Groupings; the remaining states are grouped as ‘other’ in Table 29 (Parts 1-3) in the Appendix.

Australia’s contribution to cancer research worldwide for the eight-year period 1999 to 2006 was 2.2% according to SCI-SSCI (see Table 19A), with percentage share on cancer for different parts of the body varying from 1.7% to 3.4%. The contribution to skin cancer research is especially strong with a share of 2.6% of the world’s research output on non melanoma related skin cancer and even higher (3.4%) for melanoma related skin cancer. Another area with above average contribution is breast cancer research where Australia’s share is 2.8% of all publications worldwide. Below average contributions are found in the areas of upper gastrointestinal cancer (1.7%) and neurological cancer (1.8%). In terms of the total number of research publications (4,115) on lymphohaematopoietic cancer, this is the most productive research area and comprises 13.6% of the nation’s research on cancer (see Table 19B). This is also reflected by the greatest cancer research share worldwide (14.4%). However, Australia’s contribution in this field compared to the world’s research output is just 2.1% or about the nation’s average.

The following section will introduce two different graphs for each body region. The first shows the relative share on each clinical grouping for Australia, the World, NSW, VIC and QLD over time. The second graph reflects the share of each Australian State on the total research Output from Australia for the whole eight year period.

Skin – Melanoma

For the whole eight-year period Australia’s contribution (3.6%) to melanoma skin cancer is above the world’s share of 2.3% (Figure 11). It is also evident, that QLD has the highest share of cancer research on melanoma skin cancer. VIC’s share for most of the years is lower than the world’s share, while that of NSW is well above both the world and the national level. Figure 12 shows that for the eight-year period NSW produced proportionally more publications than any other Australian state; with a share of 36.8% of all publications from Australia, related to melanoma skin cancer. This is also the highest share of contribution at the national level for all states and for all Clinical Groupings. Research on melanoma related skin cancer is clearly one of NSW research strength even though it is only 3.9% (Table 24B) of its total research output on cancer; this is topped by QLD’s share of 5.1% (Table 25B).

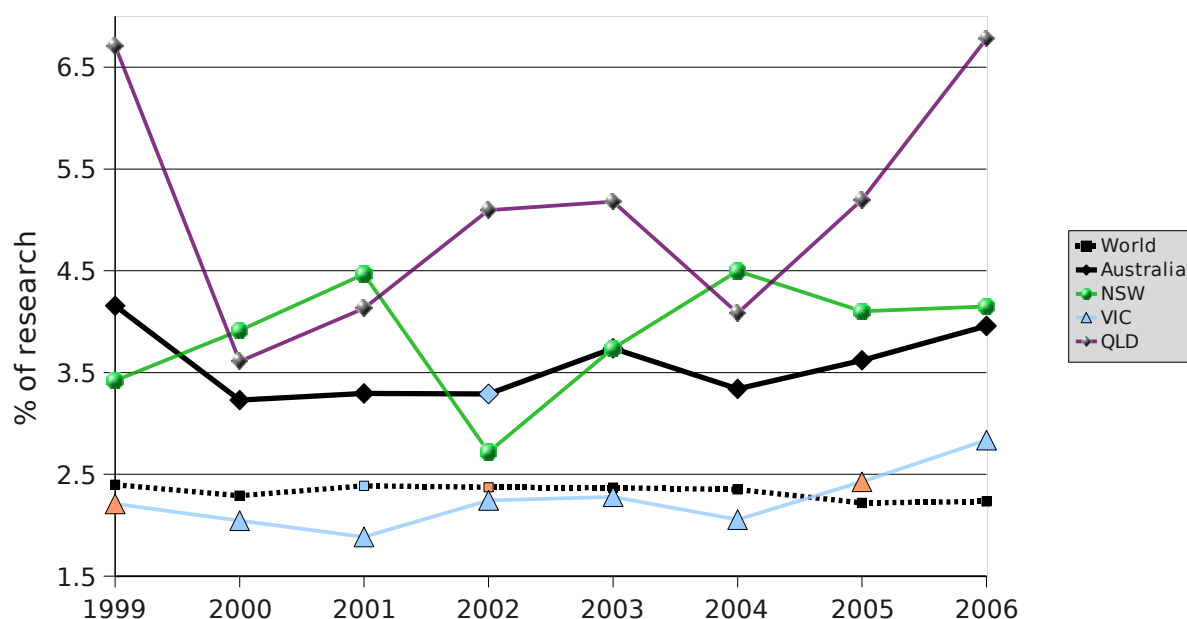


FIGURE 11: Percentage share of cancer research related to the skin (melanoma) for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

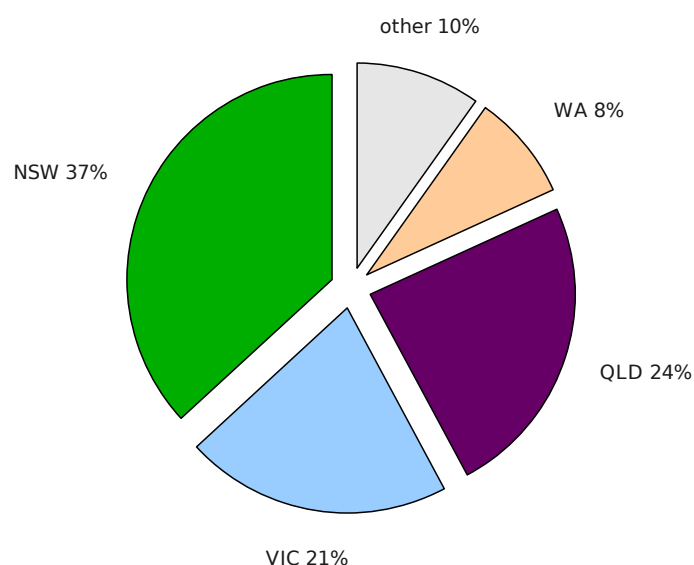


FIGURE 12: Each state's share of cancer research related to the skin (melanoma), for the years 1999-2006 (based on Table 29). *Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%*

Skin – Non Melanoma

Figure 13 shows clearly that while the worldwide ratio of research on skin cancer (non-melanoma) remained stable at 4.0%, Australia's share has increased slowly and is well ahead of the world. Once again it is evident that QLD has surpassed the other two states in its relative share of research related to non-melanoma skin cancer. Even though in 1999 VIC had a larger share of research activity in this area, NSW contributed considerably more publications for all the other years and performed for the whole eight-year period above the world's average research level; and from 2000 onwards it was also clearly above the national average. Figure 14 shows that for the eight-year period NSW produced proportionally more

publications than any other Australian state; with a share of 34.1% of all publications from Australia, related to non-melanoma skin cancer.

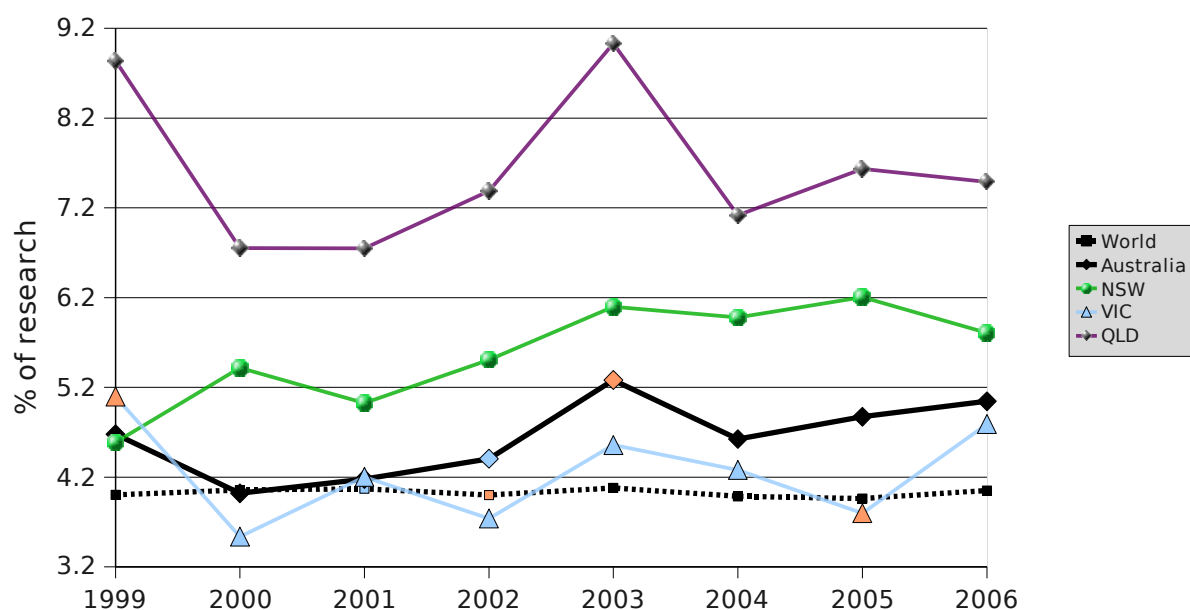


FIGURE 13: Research on cancer related to the skin (non-melanoma) for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

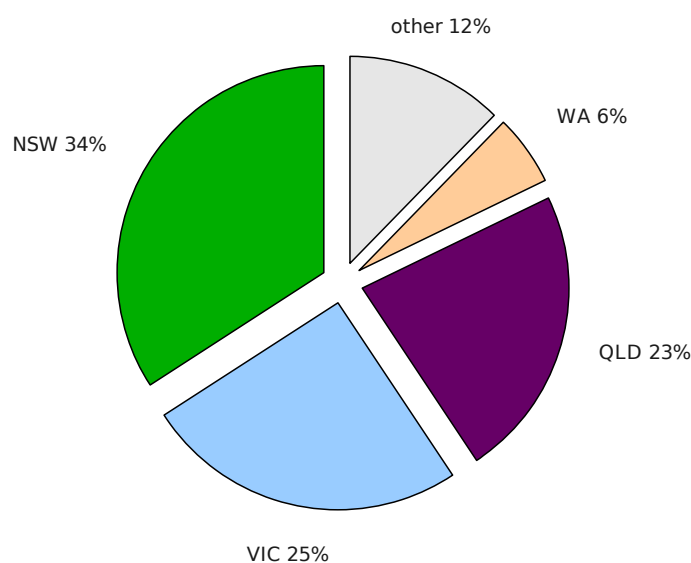


FIGURE 14: Each state's share of cancer research related to the skin (non-melanoma), for the years 1999-2006 (based on Table 29). *Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%*

Head and Neck

Over the last half decade Australia also engaged in head and neck related cancer research well above the world's average share of 8.7% (Table 20B). Figure 15 shows that since 2002 the Australian's share of research is above that of the world's average and for the whole eight-year period Australia averaged 9.3% (Table 21B). Of the three most productive Australian states, VIC's share of research related to head and neck cancer was the lowest with an average of 8.4% (Table 26B), below both the national's and world's averages. On the other hand both QLD's (10.8%) and NSW's (10.1%) average shares were well above (Tables 25B & 24B). Figure 16 shows that for the eight-year period NSW produced proportionally more publications than any other Australian state; with a share of 33.2% of all publications from Australia, related to non-melanoma skin cancer.

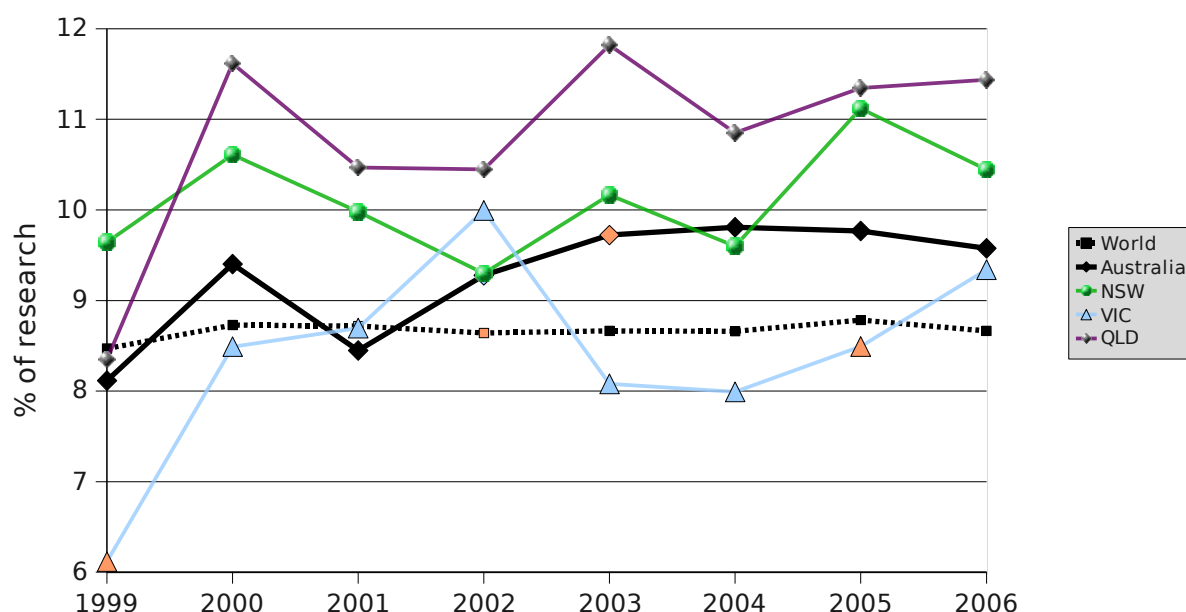


FIGURE 15: Percentage share of cancer research related to the head and neck for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

Row 92 100%

FIGURE 16: Each state's share of research on cancer related to the head and neck, for the years 1999-2006 (based on Table 29). Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.

Upper Gastrointestinal

For the eight year period 1999-2006 the world's average share of cancer research related to the upper gastrointestinal area was 10.1% (Table 20B). This was substantially more than the Australian average of 7.7% (Table 21B) or the average of any state within Australia. When comparing the three time periods 1999-2000, 2001-2003 and 2004-2006 there was a slight decline in the world's share of cancer related to this body area. Though having a somewhat more erratic pattern, Australia showed the same trend as the world, contributing a slightly lower share of research in this body region. Figure 17 shows that the Australian proportional low share of research has increased over the eight year period. This drop in research activity is most apparent for QLD: in 2005 its share was 4.3%, only about half (8.8%) of its share in 2000 (Table 25B). Even though NSW's share dropped during the initial years, it managed to maintain a steady rate of research with a slight increase in the last four years and secured an average eight-year lead of 8.1% over VIC (7.1%) – see Tables 24B and 26B). Figure 18 shows that for the eight-year period NSW produced proportionally more publications than any other Australian state; with a share of 32.8% of all publications from Australia, related to cancer in the upper gastrointestinal area.

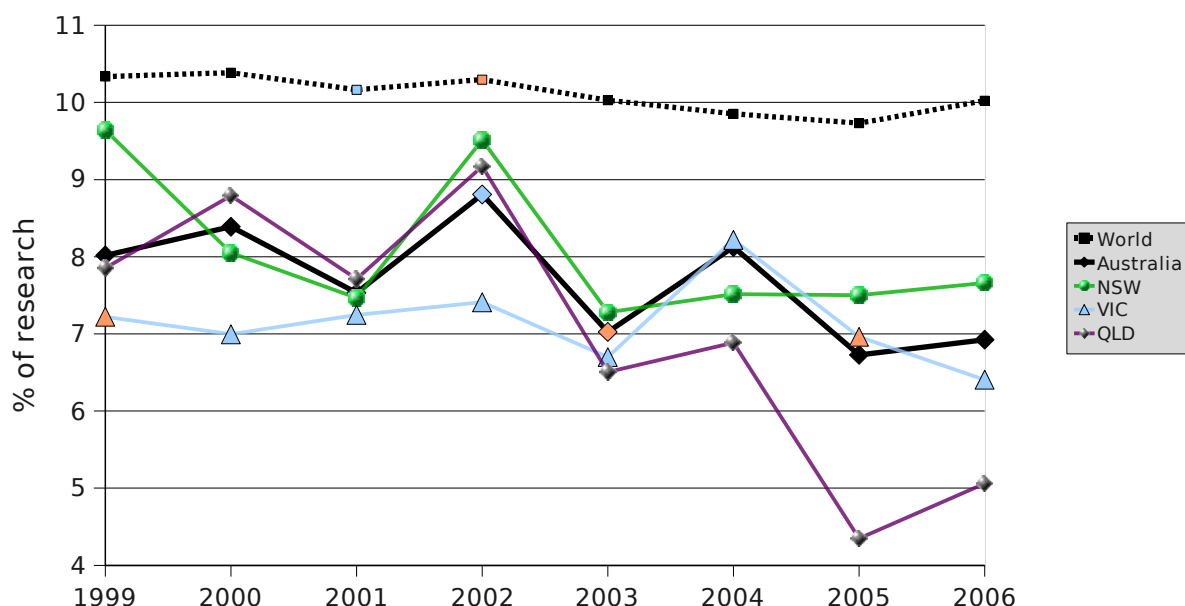


FIGURE 17: Percentage share of cancer research related to the upper gastrointestinal area for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

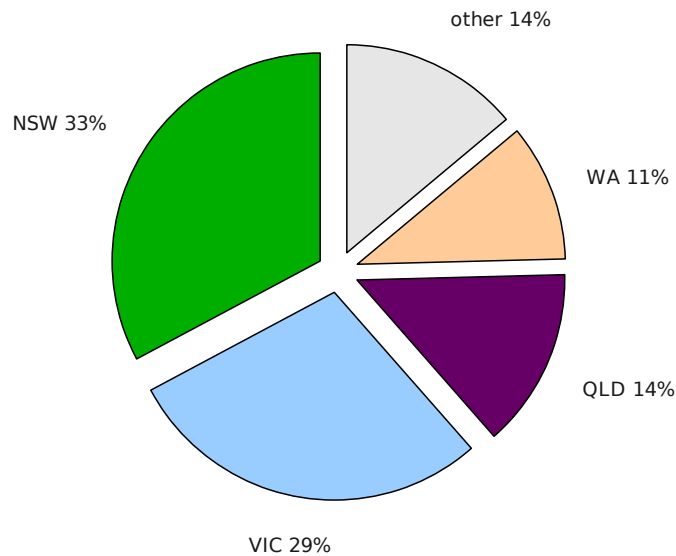


FIGURE 18: Each state's share of research on cancer related to the upper gastrointestinal area, for the years 1999-2006 (based on Table 29). *Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.*

Colorectal

The lower colorectal region showed a somewhat different pattern than the upper gastrointestinal area discussed above. Figure 19 shows Australia proportionally contributing more research to this area than the world. In 2003 the picture changed when colorectal research dropped for all states and therefore lowered the Australian share to just marginally above the world's level. Australia's share was below that of the world only in 2005; however in 2006 the trend reversed. It's important to note that the world's colorectal research activity has remained stable throughout the eight year period with an average of 7.3% (Table 20B). At the state level the general trend parallels that of the nation. However, QLD showed the most severe decline in its colorectal research activity. NSW has consistently contributed below the national average and for the last four years, it has fallen below the world's level. VIC has followed the national average closely while the smaller states (WA, SA, ACT, TAS and NT) together produced considerable less research than VIC or NSW alone, but proportionally contribute a fair share to colorectal research. Figure 20 shows that for the eight-year period NSW produced proportionally more publications than any other Australian state; with a share of 28.4% of all publications from Australia, related to colorectal cancer.

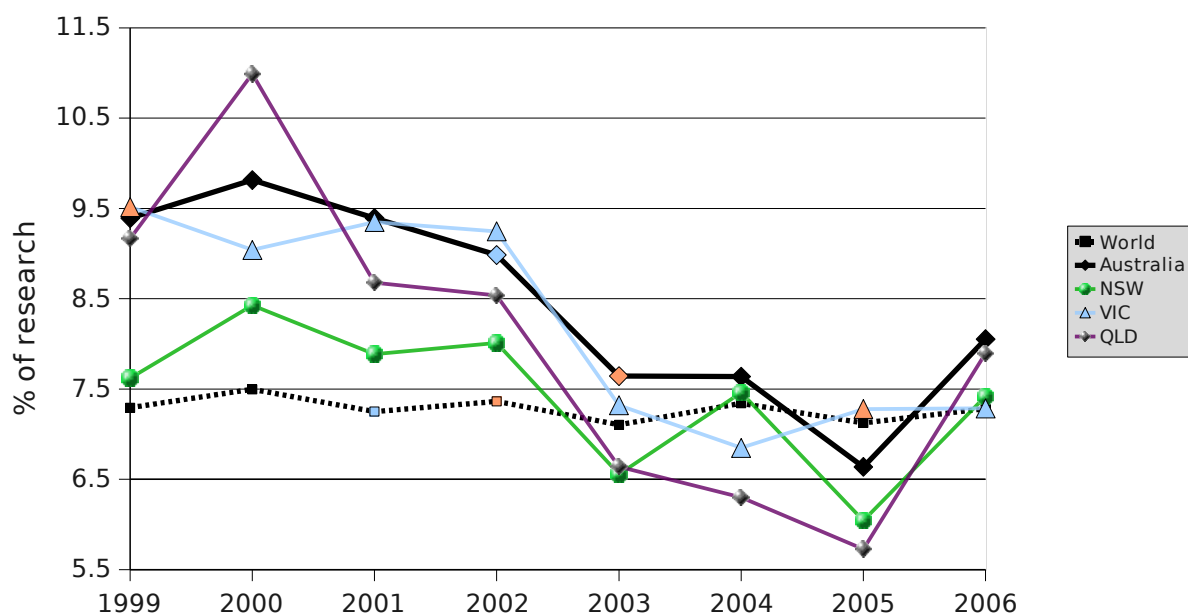


FIGURE 19: Percentage share of cancer research related to the colorectal area for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

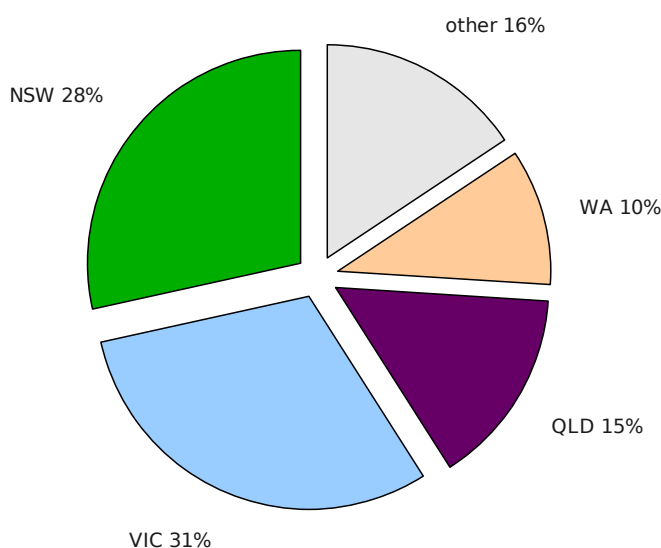


FIGURE 20: Each state's share of research on cancer related to the colorectal area, for the years 1999-2006 (based on Table 29). *Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.*

Respiratory

Figure 21 shows that the relative Australian contribution to research on respiratory cancer is substantially below the world's average share; however, there was an increase since 2003. Before 2003 the world's average remained stable at 6.0% and rose to over 6.5% for the years 2004 to 2006. With an increase in Australian's share over the eight-year period, it is now closer to the world's average. Of the three states, VIC's share in respiratory cancer is the lowest, while NSW and QLD are comparable; however their trend lines are diverging such that NSW is closer to the eight-year national average of 5.4% (Table 21B) while QLD is drifting further away (see Tables 24B and 25B). Not shown in Figure 21, WA has the highest

eight-year average share (8.0%) of respiratory cancer research; WA is well above both Australia's and the world's share (see Table 27B). Figure 22 shows that for the eight-year period NSW produced proportionally more publications than any other Australian state; with a share of 31.1% of all publications from Australia, related to respiratory cancer. Along with the high share of WA's research on respiratory cancer, its share of publications (14.2%) is close that that of QLD (15.2%).

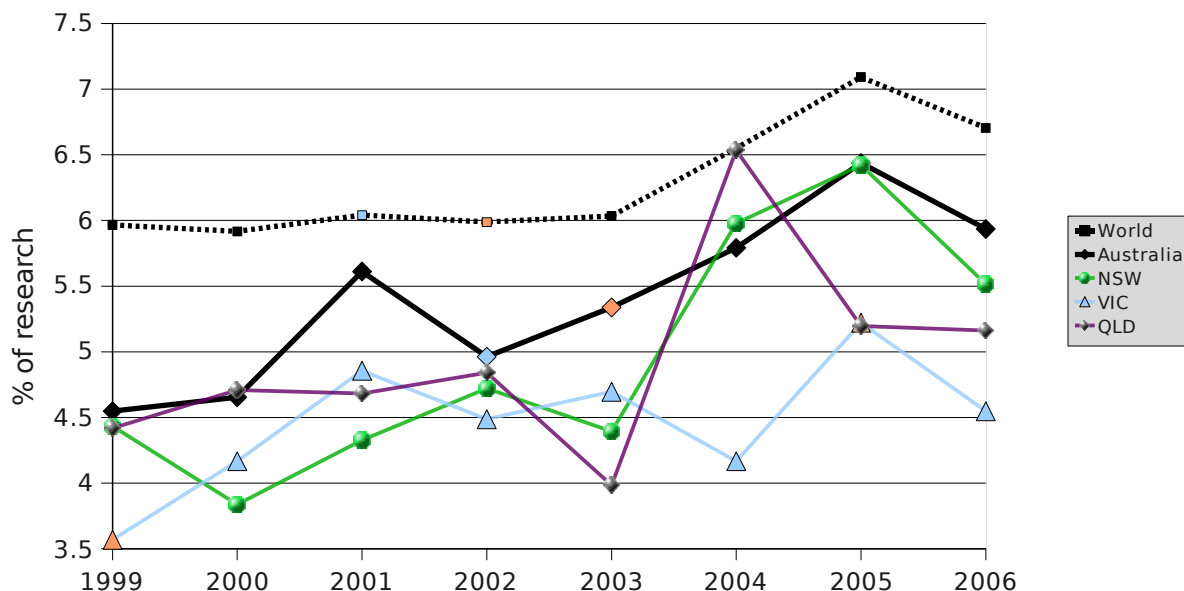


FIGURE 21: Percentage share of cancer research related to the respiratory system for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

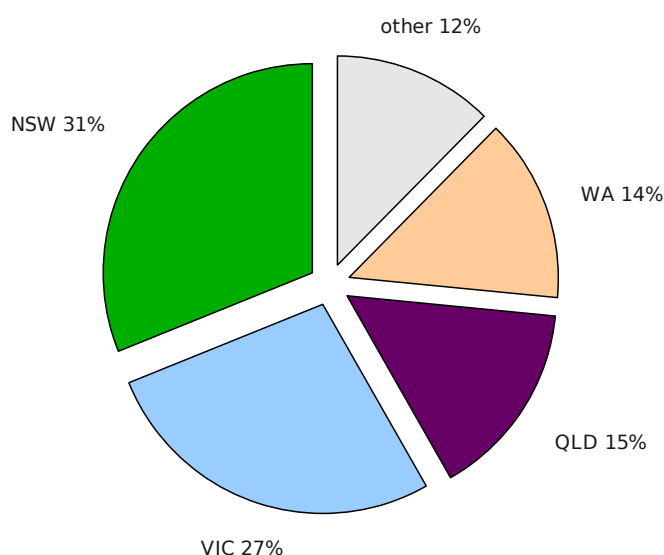


FIGURE 22: Each state's share of research on cancer related to the respiratory system, for the years 1999-2006 (based on Table 29). *Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.*

Bone and other connective tissue

Over the eight-year period the average share of cancer research related to bone and other connective tissues was slightly higher for Australia (4.8%) than the world (4.6%) – see Tables 21B and 20B. Figure 23 shows that for the last years the world's share has dropped slightly. Of the three most productive states, QLD had the smallest share of cancer research related to this body region. With a share of 4.5% NSW (Table 24B) contributed proportionally as much research to this area as the world. VIC's share of 5.6% (Table 26B) is above average and well over that of Australia or the world. Figure 24 shows that for the eight-year period VIC produced proportionally more publications than any other Australian state with a share of 35.6% of all publications from Australia, related to bone (and other connective tissue) cancer; this is well above VIC's eight-year average of 30.8%.

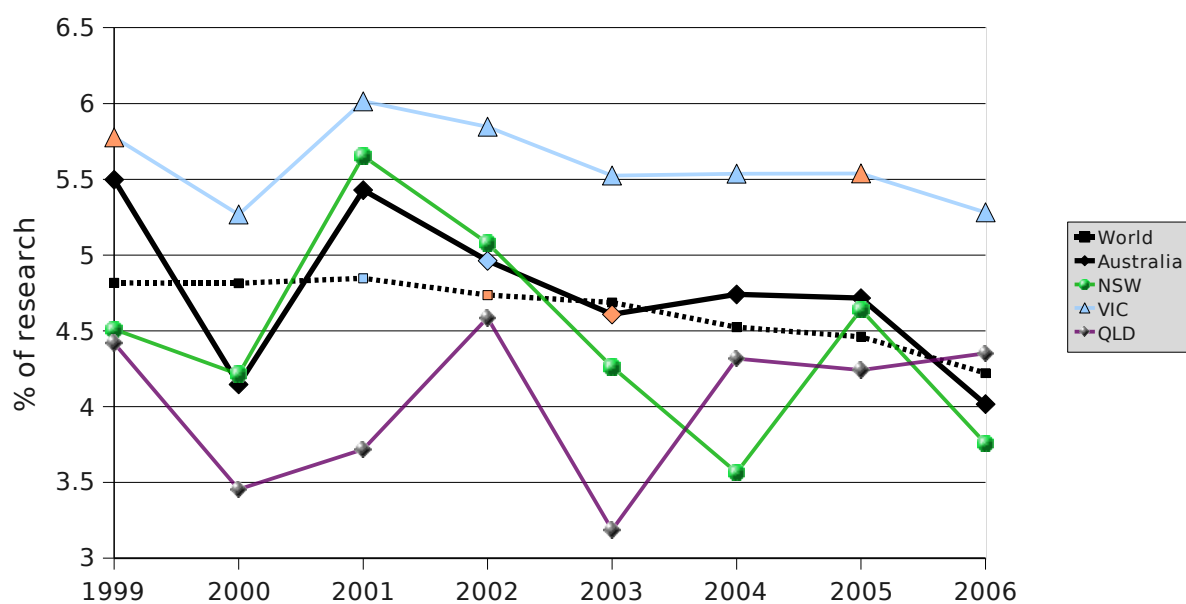


FIGURE 23: Percentage share of cancer research related to bone and other connective tissue for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

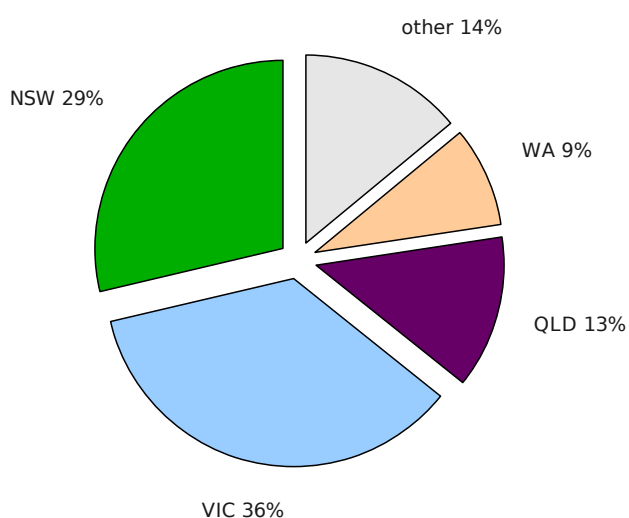


FIGURE 24: Each state's share of research on cancer related to bone and other connective tissue, for the years 1999-2006 (based on Table 29). Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.

Breast

The percentage share of breast cancer research showed substantial increases for both Australia and the world with the world's share showing steady growth while Australia had a sharp decline in 2006. For the eight-year period according to SCI-SSCI, the world's average was 8.2% (Table 20B) and 10.5% for Australia (Table 21B). For the combined results of Medline and SCI-SSCI for each Australian state for the eight-year period, NSW's share is 9.4% for cancer research (Table 24B); this is the highest share of all states. However, Figure 25 shows QLD surpassing NSW from 2004 onward. Even though NSW was consistently devoting proportionally more research than the world's average, the gap between them has been decreasing since 2003 when NSW started its steady decline and, at the same time, the world started increasing its share. VIC showed the lowest share of research on breast cancer as well as contributing just 30% to Australia's effort in this area while NSW is contributing significantly more to this field (33.4%), than its average on all cancer research (Figure 26).

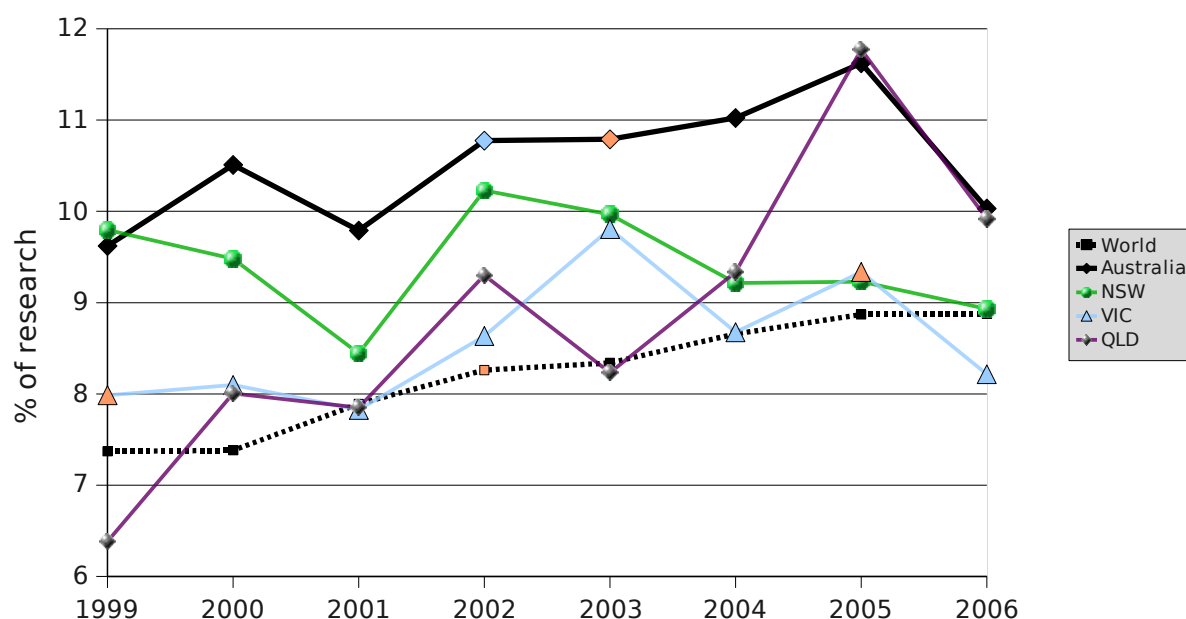


FIGURE 25: Percentage share of cancer research related to the breast for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

Row 134 100%

FIGURE 26: Each state's share of research on cancer related to the breast, for the years 1999-2006 (based on Table 29). Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.

Urogenital

Urogenital cancer research is another area where Australian researchers are contributing less than the world on average. Over the eight-year period the world's share is 8.6% (Table 20B) for urogenital cancer research and only 7.9% (Table 21B) for Australia. Figure 27 shows an increase for the world while Australia has experienced an increase until 2004 followed by a downward trend. QLD's average share for the eight year period parallels that of Australia (7.9%) and NSW was also very close with an average of 7.8%. However, VIC with a share of 9.0% is contributing more in this region than either Australia or the world. In terms of total contribution, Figure 28, shows VIC as the most productive state for this body region, contributing 34.2% of all publications.

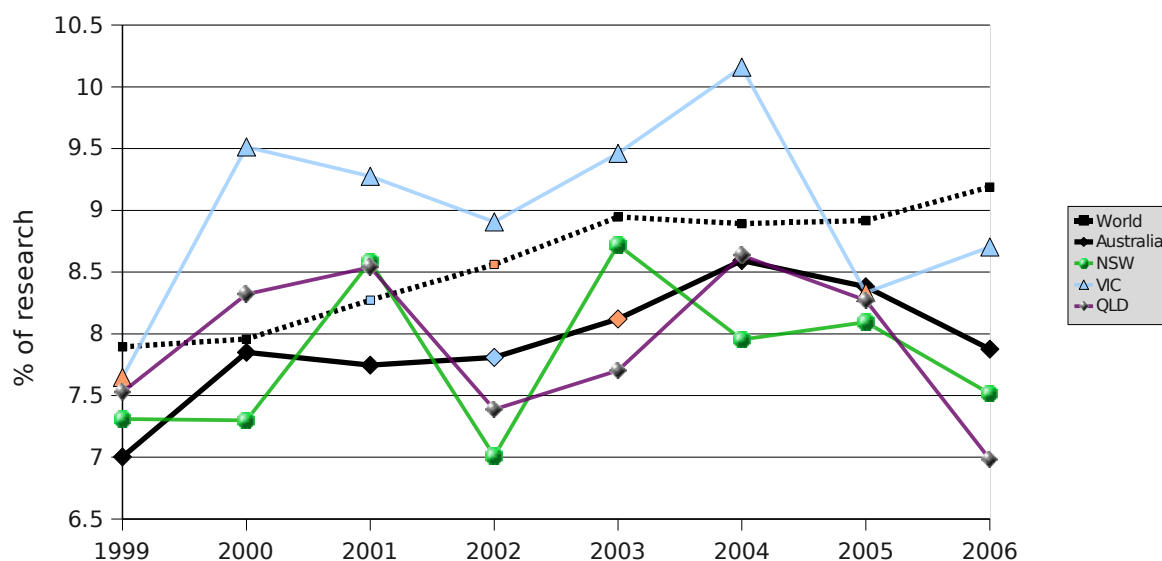


FIGURE 27: Percentage share of cancer research related to the urogenital area for Australia, the World, NSW, VIC and QLD, for the years 1999-2006 (based on Table 20B, 21B, 24B, 25B and 26B).

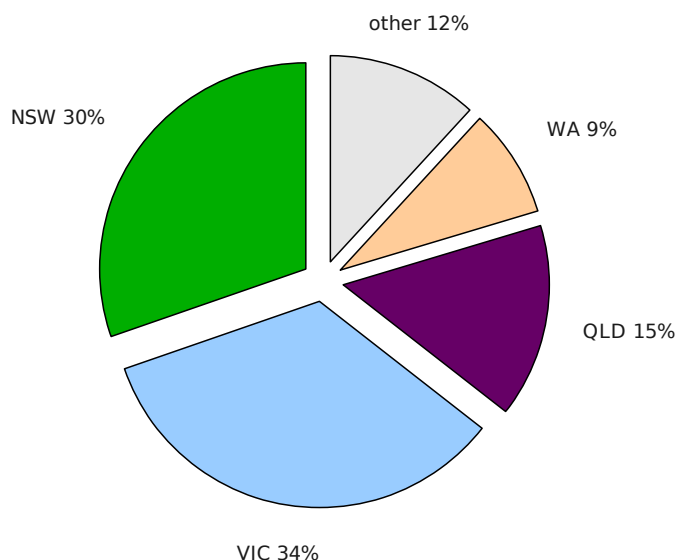


FIGURE 28: Each state's share of research on cancer related to the urogenital area, for the years 1999-2006 (based on Table 29). Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.

Gynaecological

As shown in Figure 29, Australia is on average contributing a slightly higher share of research related to gynaecological cancer than the world for the eight-year period. However, while the world's share remains constant, that of Australia is decreasing in the last two years. Comparing the states for the eight-year period, VIC is consistently contributing the highest share, more than the Australia average for nearly all years. QLD is erratic but over the eight year period, its share (3.4%) is exactly the same as the national average. NSW is also erratic but performed slightly better than the Australian average for the whole period; it appears to have had two peak years, 1999 and 2003.

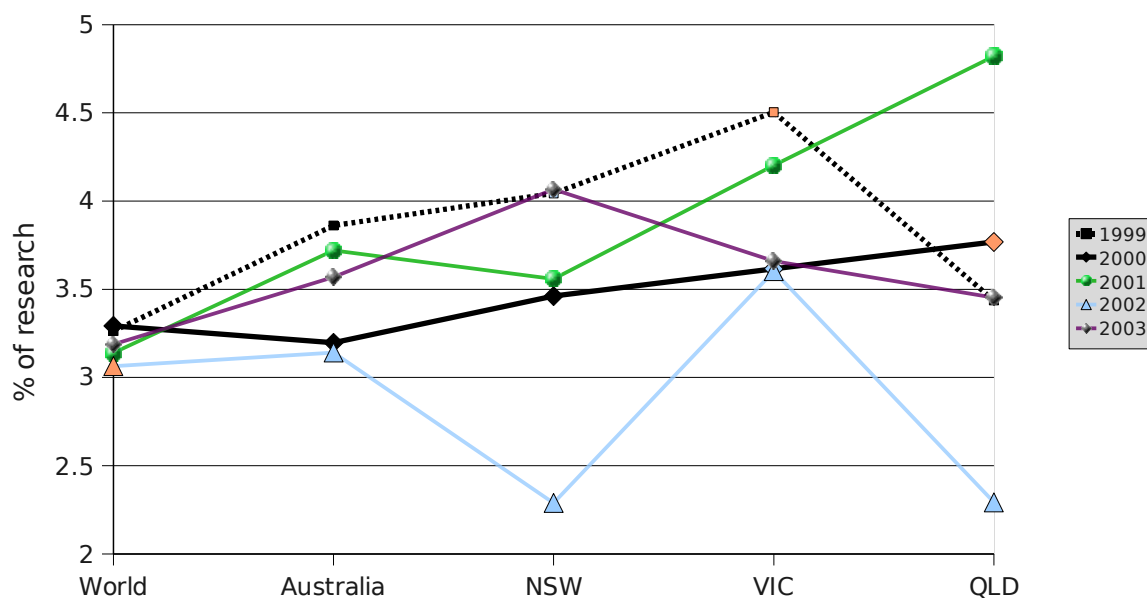


FIGURE 29: Percentage share of cancer research related to the gynaecological system for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

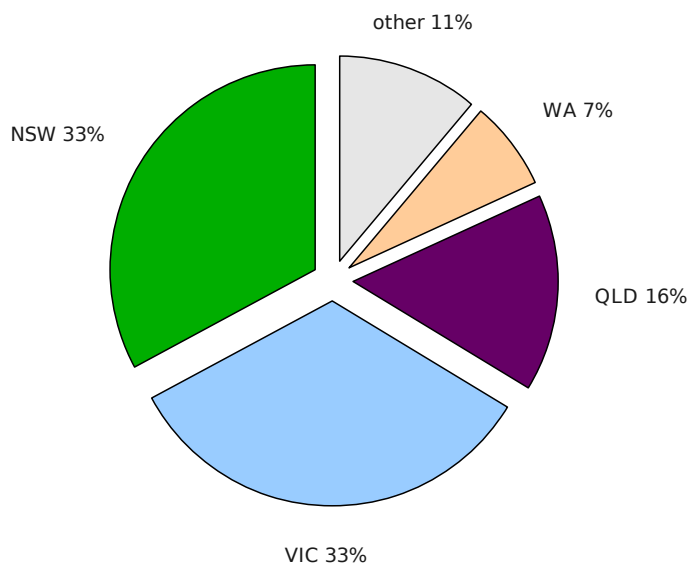


FIGURE 30: Each state's share of research on cancer related to the gynaecological system, for the years 1999-2006 (based on Table 29). Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.

Neurological

Figure 33 shows the world leading in the percentage share of cancer research related to the neurological system. However, Australia's share in the past few years shows a narrowing of the trend. On average QLD is contributing minimal research in this body region, while NSW and VIC are both performing well above the Australian average. However, over the whole eight-year period, NSW and VIC both averaged 6.3% (Tables 24B and 26B). This can also be seen in Figure 34, where both states each have over one-third of the publications related to neurological cancer and both states well above their overall cancer averages.

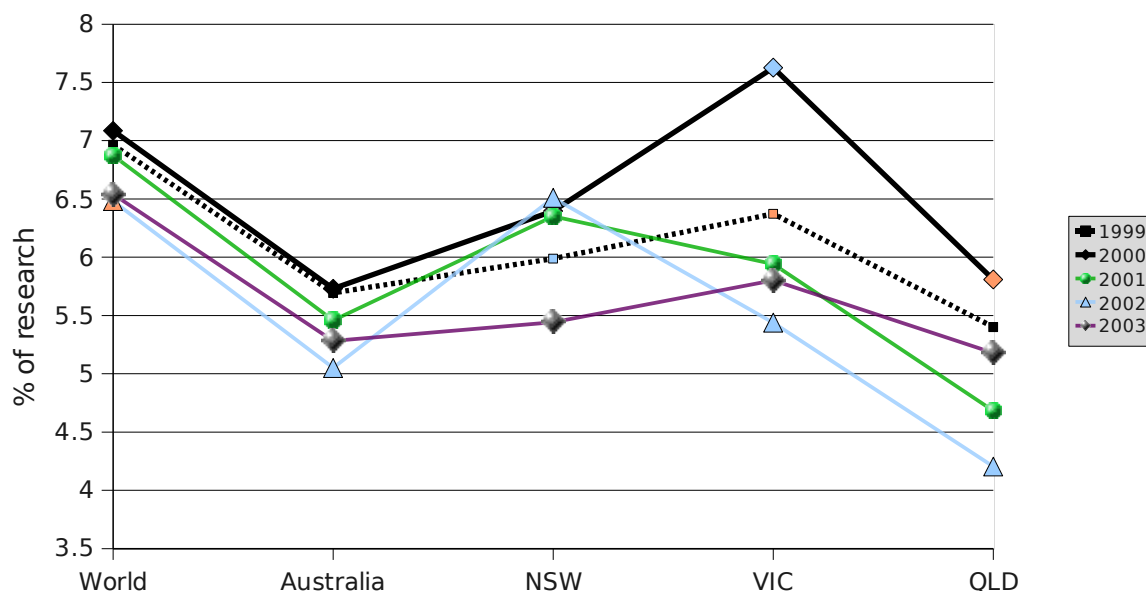


FIGURE 33: Percentage share of cancer research related to the neurological system for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

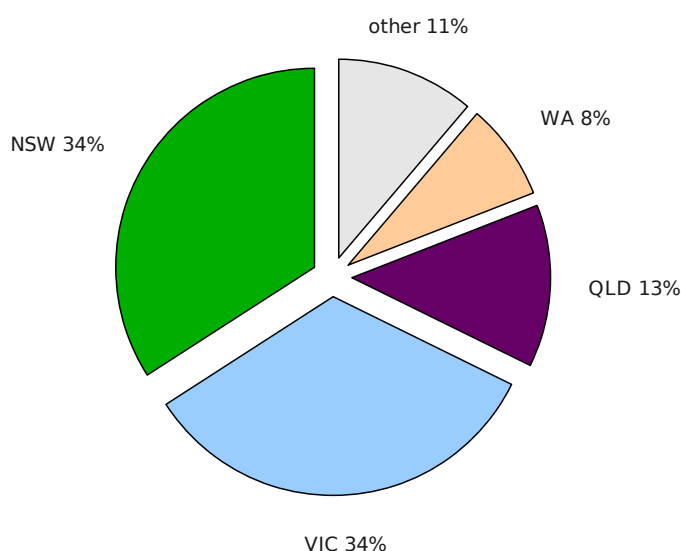


FIGURE 34: Each state's share of research on cancer related to the neurological system, for the years 1999-2006 (based on Table 29). *Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.*

Thyroid and other endocrine

Figure 35 shows clearly that on average over eight years, the world contributed proportionally more (4.3%) than Australia (3.9%). There is also a steady decline of about 0.5% over the eight years. VIC is the Australian state contributing on average the highest share of cancer research related to the thyroid and other endocrine systems (4.5%). This is slightly above the world's average. Since 2002 NSW has kept pace proportionally with the world's average. Figure 36 shows VIC and NSW each with one-third of the publications related to thyroid and other endocrine cancer; both states were well above their overall cancer averages.

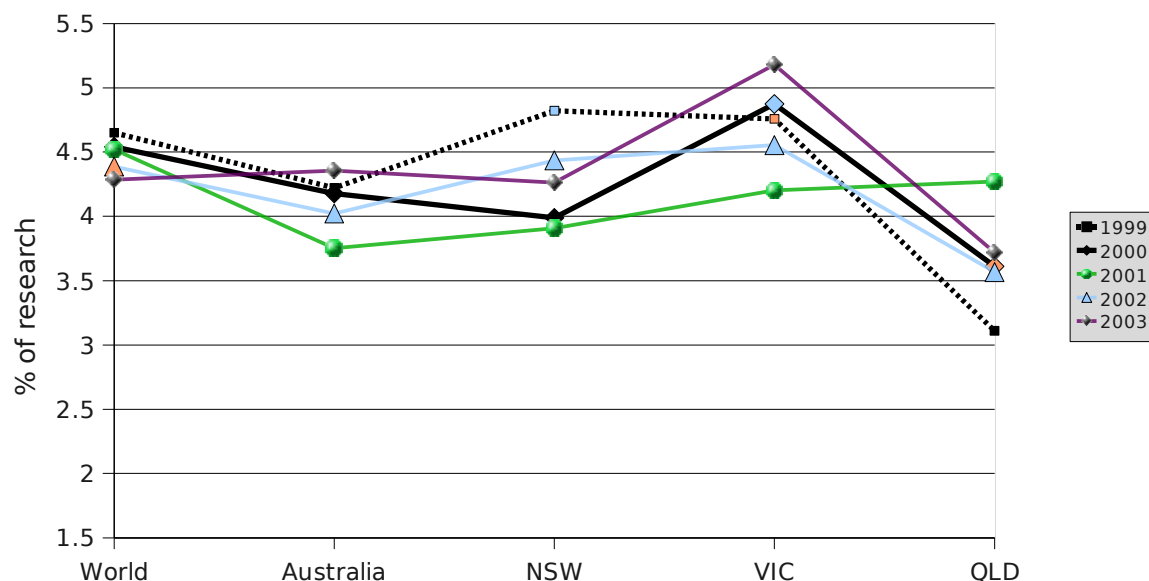


FIGURE 35: Percentage share of cancer research related to the thyroid and other endocrine areas for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

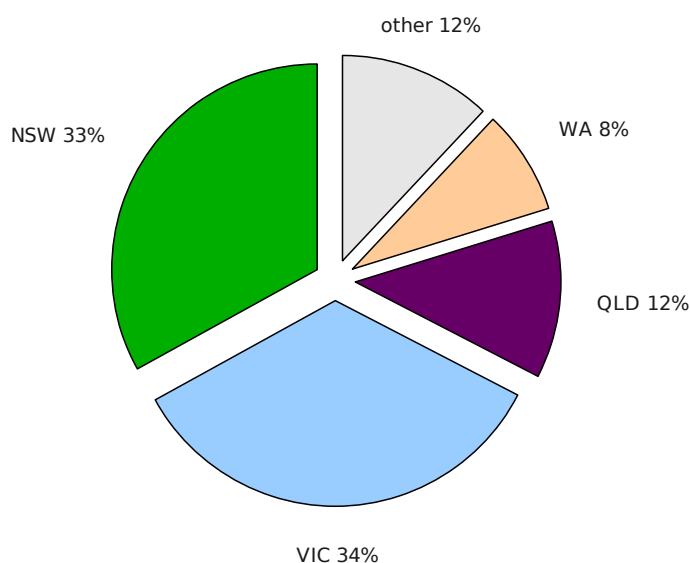


FIGURE 36: Each state's share of research on cancer related to thyroid and other endocrine, for the years 1999-2006 (based on Table 29). *Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.*

Lymphohaematopeitic

The percentage share of research on lymphohaematopeitic cancer accounts for most of Australia's research activity on cancer. However, over the eight-year period research in this area has been decreasing from 16.3% in 1999 to 12.5% in 2006 (Table 21B). The world trend nearly parallels that of Australia, however with less erratic shifts and ending slightly higher, from 15.1% in 1999 to 14.5% in 2006 (Table 20B). Figure 37 shows NSW and QLD both contributing below the national or the world's percentage shares. The strong partici-pant from Australia is VIC with an overall average percentage share of 16.2% (Table 26B), well above either Australia or the world. This is also evident in Figure 38 which shows VIC's contribution of 35.3% of all Australian publications – well ahead of NSW with 27.9%.

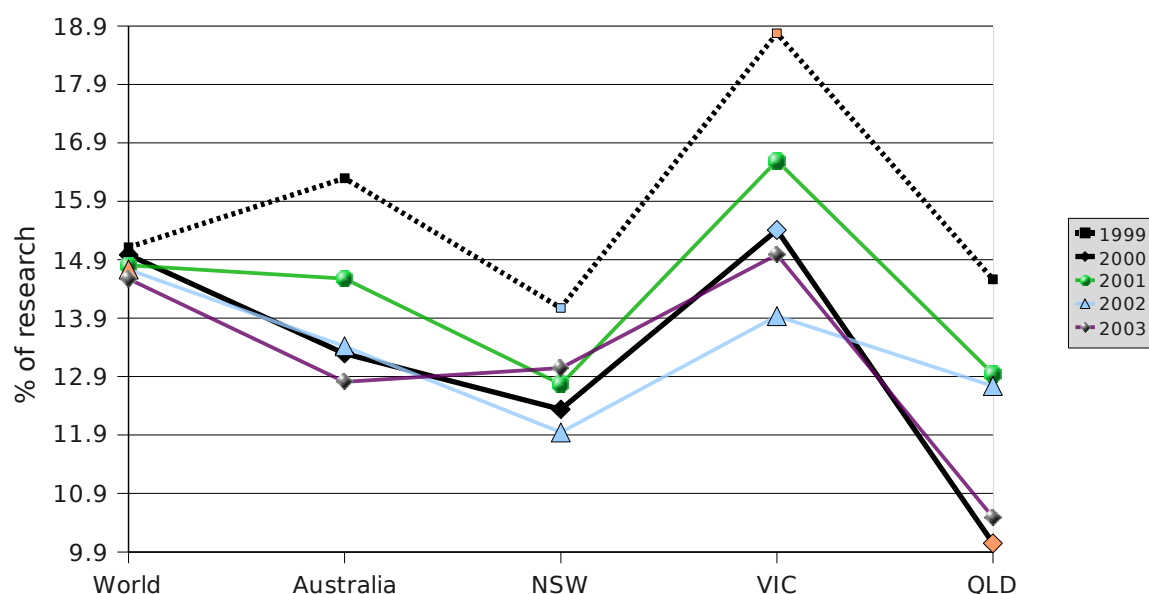


FIGURE 37: Percentage share of cancer research related to the lymphohaematopeitic system for Australia, the World, NSW, VIC and QLD, for the years 1999-2006. (Based on Table 20B, 21B, 24B, 25B and 26B)

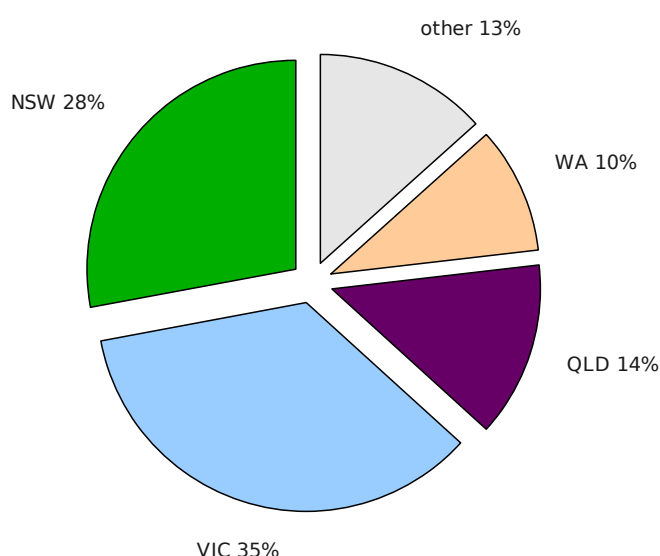


FIGURE 38: Each state's share of research on cancer related to the lymphohaematopeitic system, for the years 1999-2006 (based on Table 29). *Averages were for NSW 31.4%, for VIC 30.8%, for QLD 15.6%, for WA 8.9% and for the other States 13.2%.*

Summary of main results section III

- Australia is contributing an average of 2.2% to the world's publication output on cancer research. Above average contribution is to cancer related to the breast and to the skin, where Australia contributes 2.8% and 2.9% respectively. Below average contribution is for research related to upper gastrointestinal cancer and neurological cancer with only 1.7% and 1.8% respectively.
- Research is especially strong on melanoma related skin cancer, where Australia is contributing 3.4% to the world's research output.
- The Australian research which is most productive in terms of the total number of publications is lymphohaematopoietic cancer research with a total of 4,115 publications identified for this area in SCI-SSCI for the eight-year period.
- For the eight-year period 1999-2006 a total of 36.8% of the Australian publications on melanoma skin cancer is from NSW, making it the most productive for this body region. This figure is also the highest for any body region for all states, that is, no state has contributed as much to any body region as NSW has to melanoma skin cancer.
- Even though NSW is the most productive state for melanoma skin cancer, QLD has contributed 5.1% of the its research activity towards this body region; this is a higher share than 3.9% for NSW.
- VIC's highest contribution to a specific body region was 35.6% of the Australian publications for bone and other connective tissue. For this body region VIC contributed proportionally a greater share than any other state or the world.
- WA's strongest field of research is cancer of the respiratory system where this state is contributing 14.2% of the national research output; this is clearly above the state's average of 8.9%. Compared to other parts of the body 8.0% of the WA research is devoted to the respiratory system which is significantly more than the Australian or the world's averages of 6.3% and 5.4% respectively.
- In Breast cancer research NSW is the leading state with the highest share of research devoted to this area out of all states and with above average contribution to the total number of the nation's research output. However, it seems that NSW's contribution to this body region is decreasing over the years while it is increasing worldwide and for Australia.
- Research on Lymphohaematopoietic cancer is another area of above average contribution by VIC, contributing more research than the world or Australia with a 35.3% share of all Australian publications.

IV. Analysis of cancer publications by broad research areas, from 1999 to 2006

Comparison of NSW, VIC and the other states

In allocating the Australian SCI-SSCI cancer related research publications, state by state, and into four broad research areas: Basic research, Psychosocial/Behavioural research, Clinical research, and Public Health, the results show that most papers are published in journals related to either Basic Research or Clinical Research. Figure 39 shows VIC having a greater percentage allocated to Basic Research (45.4%) than NSW (40.3%); this is similar with the

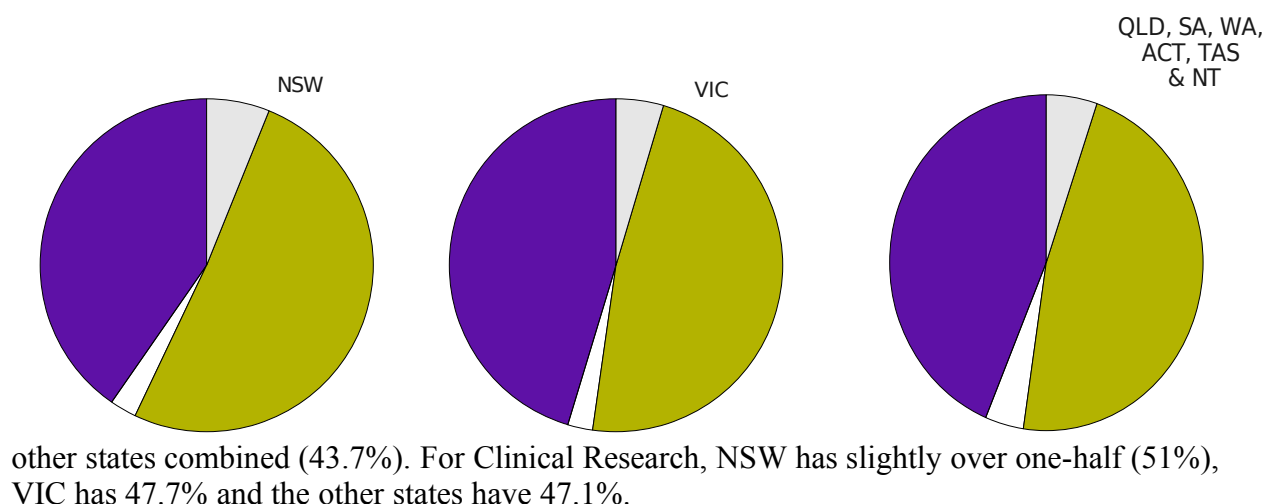


FIGURE 39: Percentage allocation of research into four broad research areas for VIC, NSW and the other states combined: left, Basic Research; top, Psychosocial/Behavioural Research; right, Clinical Research and bottom, Public Health (based on Tables 30B, 31B and 32B).

Comparison of the four broad research areas

Looking at the four broad research areas: Basic Research, Public Health Research, Clinical Research and Psychosocial/Behavioural Research reveals some difference in the general research focus of NSW versus VIC and the other states. Figure 40 shows that VIC places stronger emphasis on Basic Research than NSW with 32.9% and 29.6% respectively. In contrast NSW (32.9%) has contributed more to Clinical Research than VIC (30.7%). Public Health Research is stronger for the other Australian states, with relatively little research activity in this field from NSW and VIC. Psychosocial/Behavioural Research is again more important for researchers from NSW than for those from VIC.

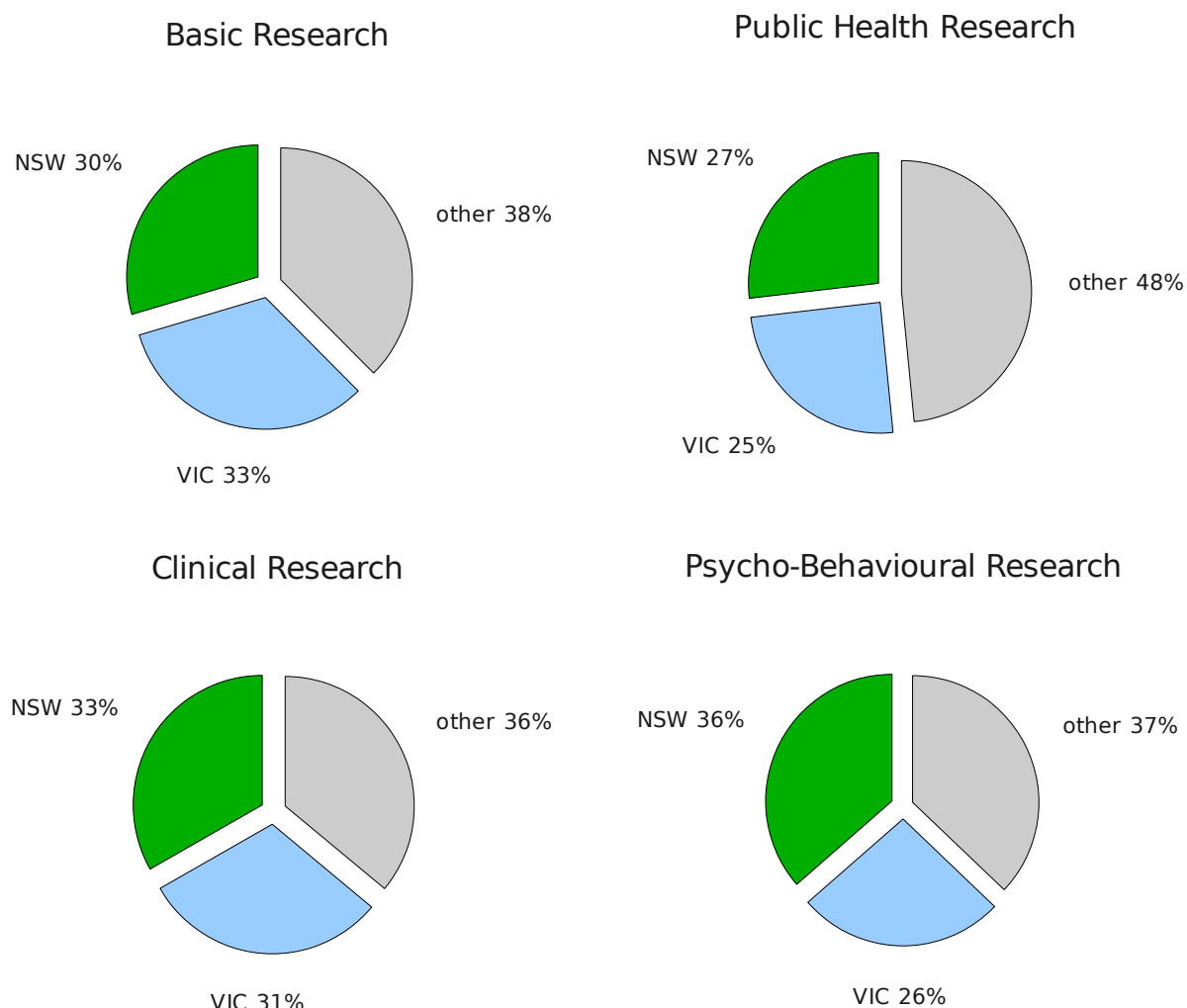


Figure 40: Percentage of publications for NSW, VIC and the other states combined based on the number of publications for the four broad research areas: Basic Research, Public Health Research, Clinical Research and Psychosocial/Behavioural Research (based on Tables 33, 34, 35 and 36).

V. Analysis of cancer publications from NSW by research hubs, from 1999 to 2006

Looking at the research output from the different Research Hubs in the Table below shows that Central Sydney was for all years the most productive research Hub, with a consistent share of about one-third of all cancer publications from NSW over all years. From within this research hub the University of Sydney is the most important contributor, which is by itself responsible for roughly 30% of all research in NSW (see appendix Table 38A and 38B). The second most important research hub is Randwick, with a share of about 20% of all cancer research from NSW. Within this research hub the University of New South Wales plays the most important role, contributing about 17% to publications within NSW. The third strongest research hub is Western Sydney, with a contribution fluctuating between 12-15% of all publications from NSW. Northern Sydney, the Hunter Region and Darlingshurst form a group of research hubs, each contributing a substantial number of publications, however, none reaching the 10% mark of all NSW publications. The other research hubs are of minor

importance in terms of the total number of publications from NSW and are in order of decreasing productivity in 2006: South West Sydney, Illawarra, Distrib Rural, Charles Stuart, ANSTO and CSIRO.

Looking at the research hubs over time shows that their research outputs are more or less stable. The only hub showing a somewhat clear trend is Darlingshurst with a slightly decreasing share on all publications from NSW.

It should be noted that researchers may have joint appointments with a research institution and a university which are not within the same hub, most commonly this occurs with the two major universities: University of Sydney and UNSW. The allocation of publications to hubs was dependent on the address used by the researcher, thus if only a university address was provided then publications will be included in the hub relevant to the university rather than the location of the research institution. This may lead to slightly higher than expected figures for the Central and Randwick hubs compared to other hubs as this is where University of Sydney and UNSW respectively are located.

Percentage of Publications for each year 1999-2006, by Research Hubs in NSW. (according to author affiliation)

Hub	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)
Central Sydney	33.2	34.1	36.6	30.9	36.6	36.6	36.4	33.6
Randwick	16.7	19.2	18.4	19.2	20.1	20.1	17.7	19.3
Western Sydney	15.0	11.8	14.6	14.5	12.8	12.6	14.2	12.9
Northern Sydney	8.0	9.5	7.4	9.2	6.5	6.6	7.9	9.2
Hunter	9.7	7.9	8.6	7.6	8.7	8.7	8.1	8.4
Darlinghurst	9.9	9.4	9.1	9.0	7.0	7.0	8.0	7.4
SW Sydney	1.9	2.3	1.9	2.2	2.0	2.0	2.4	2.5
Illawarra	2.1	1.1	0.9	1.4	1.1	1.1	0.9	1.3
Distrib Rural	0.2	0.4	0.2	0.2	0.3	0.3	0.5	0.6
Charles Stuart	0.3	0.4	0.2	0.5	0.1	0.1	0.1	0.3
ANSTO	0.2	0.2	0.1	0.3	0.3	0.3	0.3	0.2
CSIRO	1.1	1.2	0.3	1.0	0.5	0.5	0.1	0.2
Unclassified	1.7	2.3	1.6	3.7	4.1	4.1	3.4	4.2
Total	100	100	100	100	100	100	100	100

Appendix – Tables

SCI / SSCI based results

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- Appendix TABLE 6: Details of international collaboration in the Australian cancer literature for 1999-2006, by state, according to SCI-SSCI: number of collaborations, number of collaborating countries, and the top five collaborating countries.
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- TABLE 7C: Publications on cancer as a percentage of publications in medicine, for the years 1999-2006, both by Australian researchers and in the World. (Based on Tables 7A and 7B.)
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- TABLE 8A: The number of publications in medicine for the years 1999-2006 allocated over the eight Australian states, according to Medline.
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MEDLINE based results (cont.)

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 - TABLE 9A: The number of publications on cancer for the years 1999-2006 allocated over the eight Australian states, according to Medline
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 - TABLE 12: Mean Impact Factor for publications on cancer for years 1999-2006 for each Australian state. (Publications from Medline, Impact Factors from JCRs.)
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Results based on both, Medline and SCI & SSCI

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Cancer by Body Region

- TABLE 15A: The number of publications by body region specific to cancer for the years 1999-2006, both by Australian researchers and in the World, according to Medline.
 - TABLE 15B: Percentage of publications on cancer by body region in relation to all publications on cancer, for the years 1999-2006, according to Medline.
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Cancer by Body Region (cont.)

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- TABLE 16A: The number of publications by body region specific to cancer for each year 1999-2006 by the World, according to Medline.
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- TABLE 16B: Percentage of publications on cancer by body region for each year 1999-2006 by the World, according to Medline.
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- TABLE 17A: The number of publications by body region specific to cancer for each year 1999-2006 by Australia, according to Medline.
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- TABLE 37: Percentage of Publications for each year 1999-2006, by Research Hubs in NSW. (according to author affiliation)
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- TABLE 38A: Number of Publications for each year 1999-2006, by Research Hubs and Affiliation in NSW.
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- TABLE 38B: Percentage of Publications for each year 1999-2006, by Research Hubs and Affiliation in NSW.
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TABLE 1: The number of publications on cancer for the years 1999-2006, both by Australian researchers and in the World, according to SCI-SSCI.
(Duplicate records, have not been removed.)

Year	No. pubs. Australia	growth to previous year (%)*	No. pubs. World	Australia's share (%)
1999	1,781		88,398	2.0
2000	1,881	5.6	88,604	2.1
2001	1,932	2.7	91,727	2.1
2002	2,000	3.5	97,035	2.1
2003	2,113	5.7	101,150	2.1
2004	2,514	19.0	110,390	2.3
2005	2,661	5.8	119,530	2.2
2006	3,035	14.1	125,934	2.4
8-yr period	17,917	70.4	822,768	2.2

* The calculation is based on the number of publications for a given year as a gain of publications from the previous year. The total growth is based on the number of publications in 2006 as a gain of the publications from 1999.

TABLE 2A: Details of the allocation of unique publications from Australia over the eight Australian 'states'. (Data according to SCI-SSCI.)

State	Total no. pubs. allocated to state	No. pubs. allocated to one or more other states	No. pubs. from this state only	[No. pubs. from this state only] / [No. pubs. allocated to state] (%)	[No. pubs. from this state only] / [No. pubs. from Australia] (%)
NSW	6,452	1,756	4,696	72.8	27.6
VIC	6,214	1,789	4,425	71.2	26.0
QLD	3,160	996	2,164	68.5	12.7
SA	1,865	553	1,312	70.3	7.7
WA	1,893	739	1,154	61.0	6.8
ACT	710	511	199	28.0	1.2
TAS	228	116	112	49.1	0.7
NT	79	57	22	27.8	0.1
Total	20,601	6,517	14,084		

Summary:

- 17,917 publications including duplicates from Australia: SCI/SSCI 1999:2006.
- 17,003 unique publications from Australia: SCI/SSCI 1999:2006. (% of dupls = 5.10%)
- 14,082 unique publications from a single state only, or 82.8% of all unique pubs.
- 2,919 unique publications are from more than one state, or 17.2% of all unique pubs; there is an average of 2.23 (6,517/2,919) states/pub for these 2,919 pubs.

Thus, NSW is allocated 6,452 publications in this study, of which 4,696 (72.8%) are not shared with other states. The latter make up 27.6% of all Australian publications.

TABLE 2B: Number of publications with collaborations from 1999-2006 over the eight Australian 'states'. (Data according to SCI-SSCI.)

	NSW	VIC	QLD	SA	WA	ACT	TAS	NT	Total
1999	140	140	75	53	60	53	7	7	1,128
2000	161	154	88	48	57	68	11	6	593
2001	186	176	90	59	86	56	14	5	672
2002	184	199	113	44	65	44	5	5	659
2003	219	224	128	64	99	58	17	10	819
2004	258	257	147	77	127	76	23	12	977
2005	282	294	175	93	109	85	18	7	1,063
2006	326	345	180	115	136	71	21	5	1,199
Total	1,756	1,789	996	553	739	511	116	57	

TABLE 3A: The number of publications on cancer for the years 1999-2006 allocated over the eight Australian states, according to SCI-SSCI.

Year	NSW	VIC	QLD	SA	WA	ACT	TAS	NT	Total allocation
1999	657	566	296	205	183	68	23	11	2,009
2000	662	630	309	210	182	93	31	8	2,125
2001	705	644	351	191	219	73	29	6	2,218
2002	719	687	381	188	199	65	26	7	2,272
2003	770	720	369	240	229	82	26	15	2,451
2004	924	886	431	256	285	107	33	13	2,935
2005	945	991	501	273	280	106	25	10	3,131
2006	1,070	1,090	522	302	316	116	35	9	3,460
8-yr period	6,452	6,214	3,160	1,865	1,893	710	228	79	20,601

TABLE 3B: Each state's percentage of Australian publications on cancer for the years 1999-2006, according to SCI-SSCI. (Based on Table 3A.)

Year	NSW (%)	VIC (%)	QLD (%)	SA (%)	WA (%)	ACT (%)	TAS (%)	NT (%)	Total allocation (%)
1999	32.7	28.2	14.7	10.2	9.1	3.4	1.1	0.5	100.0
2000	31.2	29.6	14.5	9.9	8.6	4.4	1.5	0.4	100.0
2001	31.8	29.0	15.8	8.6	9.9	3.3	1.3	0.3	100.0
2002	31.6	30.2	16.8	8.3	8.8	2.9	1.1	0.3	100.0
2003	31.4	29.4	15.1	9.8	9.3	3.3	1.1	0.6	100.0
2004	31.5	30.2	14.7	8.7	9.7	3.6	1.1	0.4	100.0
2005	30.2	31.7	16.0	8.7	8.9	3.4	0.8	0.3	100.0
2006	30.9	31.5	15.1	8.7	9.1	3.4	1.0	0.3	100.0
8-yr period	31.3	30.2	15.3	9.1	9.2	3.4	1.1	0.4	

TABLE 4: Mean Impact Factor for publications on cancer for years 1999-2006 for each Australian state; publications from SCI-SSCI, Impact Factors from JCRs.

Year	NSW	VIC	QLD	SA	WA	ACT	TAS	NT	Australia
1999	3.12	3.94	3.45	3.72	3.96	3.41	1.91	2.13	3.45
2000	3.40	3.88	3.45	3.45	3.82	3.31	3.48	3.41	3.45
2001	3.40	3.93	3.67	3.54	4.38	3.73	3.26	0.49	3.40
2002	3.69	4.43	3.73	3.48	4.08	3.53	2.87	1.03	3.77
2003	4.03	4.44	3.86	3.49	4.38	4.41	2.27	1.68	3.98
2004	4.08	4.61	3.78	3.37	4.15	3.92	4.42	1.62	4.06
2005	4.38	5.17	4.29	4.29	5.02	4.15	4.44	2.78	4.51
2006	4.45	4.95	4.55	4.16	4.90	4.14	4.64	2.22	4.58
8-yr period	3.82	4.42	3.85	3.69	4.34	3.83	3.41	1.92	3.90

Appendix TABLE 4 (Part1): Mean Impact Factor for publications on cancer for the years 1999-2006 for each Australian state; publications from SCI-SSCI, Impact Factors from JCRs.

The number and percentage of journals without IFs are shown. Asterisks (*) indicate that a few publications did not have a Journal ISSN field and have been deleted here; thus 687 pubs for VIC 2006 reduces to 685 pubs.

NSW					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.12	657	310	15	4.8
2000	3.40	662	317	11	3.5
2001	3.40	705	327	25	7.6
2002	3.69	719	351	19	5.4
2003	4.03	770	369	28	7.6
2004	4.08	924	402	21	5.2
2005	4.38	945	402	24	6.0
2006	4.45	1,070	475	46	9.7
8-yr period	3.82	6,452			

QLD					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.45	296	192	5	2.6
2000	3.45	309	187	0	0.0
2001	3.67	351	218	14	6.4
2002	3.73	381	234	8	3.4
2003	3.86	369	237	8	3.4
2004	3.78	431	256	13	5.1
2005	4.29	501	272	14	5.1
2006	4.55	522	295	22	7.5
8-yr period	3.85	3,160			

VIC					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.94	566	282	15	5.3
2000	3.88	630	299	9	3.0
2001	3.93	644	319	23	7.2
2002	4.43	685 *	338	11	3.3
2003	4.44	720	350	11	3.1
2004	4.61	886	394	16	4.1
2005	5.17	991	395	19	4.8
2006	4.95	1,090	482	36	7.5
8-yr period	4.42	6,212 *			

SA					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.72	205	131	8	6.1
2000	3.45	210	140	11	7.9
2001	3.54	191	138	5	3.6
2002	3.48	188	132	1	0.8
2003	3.49	240	173	6	3.5
2004	3.37	256	172	4	2.3
2005	4.29	273	170	11	6.5
2006	4.16	302	202	13	6.4
8-yr period	3.69	1,865			

Appendix TABLE 4 (Part 2):

WA					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.96	183	115	1	0.9
2000	3.82	182	124	1	0.8
2001	4.38	219	147	6	4.1
2002	4.08	199	131	3	2.3
2003	4.38	229	159	7	4.4
2004	4.15	285	179	2	1.1
2005	5.02	280	169	5	3.0
2006	4.90	316	202	9	4.5
8-yr period	4.34	1,893			

TAS					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	1.91	23	20	0	0.0
2000	3.48	31	27	1	3.7
2001	3.26	29	26	0	0.0
2002	2.87	26	25	0	0.0
2003	2.27	26	22	1	4.5
2004	4.42	33	31	2	6.5
2005	4.44	25	23	1	4.3
2006	4.64	35	33	0	0.0
8-yr period	3.41	228			

ACT					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.41	68	52	0	0.0
2000	3.31	93	77	3	3.9
2001	3.73	73	57	1	1.8
2002	3.53	65	54	0	0.0
2003	4.41	82	66	3	4.5
2004	3.92	107	86	1	1.2
2005	4.15	106	85	4	4.7
2006	4.14	116	92	4	4.3
8-yr period	3.83	710			

NT					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	2.13	11	10	0	0.0
2000	3.41	8	7	1	14.3
2001	0.49	6	5	2	40.0
2002	1.03	7	7	0	0.0
2003	1.68	15	15	2	13.3
2004	1.62	13	9	0	0.0
2005	2.78	10	10	0	0.0
2006	2.22	9	7	0	0.0
8-yr period	1.92	79			

TABLE 5: The number and percentage of publications on cancer from SCI-SSCI versus the mean publication Impact Factors (IFs), for three states, for 1999 and for 2006.

Mean publication IFs are grouped in intervals of 1.000 units.
(Data according to SCI-SSCI.)

1999		NSW		VIC		QLD	
		No. pubs	% pubs	No. pubs	% pubs	No. pubs	% pubs
	IF groups						
	0	17	2.6	18	3.2	6	2.0
	0.001 – 1	179	27.2	115	20.3	58	19.6
	1.001 – 2	129	19.6	100	17.7	67	22.6
	2.001 – 3	95	14.5	93	16.4	50	16.9
	3.001 – 4	96	14.6	81	14.3	40	13.5
	4.001 – 5	23	3.5	26	4.6	14	4.7
	5.001 – 6	30	4.6	24	4.2	13	4.4
	6.001 – 7	13	2.0	17	3.0	5	1.7
	> 7	75	11.4	92	16.3	43	14.5
Total no. publications		657		566		296	
<i>Distribution:</i>							
	mode		0.50		0.50		1.50
	median		2.01		2.54		2.35
	mean		3.11		3.94		3.45
	max. value		36.24		47.56		28.86

2006		NSW		VIC		QLD	
		No. pubs	% pubs	No. pubs	% pubs	No. pubs	% pubs
	IF groups						
	0	51	4.8	45	4.1	23.0	4.4
	0.001 – 1	98	9.2	85	7.8	30	5.7
	1.001 – 2	181	16.9	166	15.2	90	17.2
	2.001 – 3	226	21.1	191	17.5	108	20.7
	3.001 – 4	124	11.6	122	11.2	63	12.1
	4.001 – 5	136	12.7	159	14.6	84	16.1
	5.001 – 6	72	6.7	78	7.2	39	7.5
	6.001 – 7	35	3.3	54	5.0	16	3.1
	> 7	147	13.7	190	17.4	69	13.2
Total no. publications		1,070		1,090		522	
<i>Distribution:</i>							
	mode		2.50		2.50		2.50
	median		2.86		3.50		3.22
	mean		4.45		4.95		4.55
	max. value		51.30		51.30		51.30

TABLE 6A: Four international collaboration measures for the cancer literature for each Australian state for 1999-2006. (Data according to SCI-SSCI.)

- The number of international 'collaborations' 'per' 100 publications.
- The number of non-Australian collaborating countries per 100 publications.
- The percentage of collaborations with top collaborating country (USA).
- The percentage of collaborations with top two collaborating countries (USA & England*).

State	no. pubs	collaborations				collaborating countries no./ 100 pubs		percentage of collaboration with top country (USA)		percentage of collaboration with top 2 countries (USA & ENG*)	
		Total	no. 1 USA	no. 2 ENG*	per 100 pubs			Rank	%	Rank	%
NSW	6,452	4,384	969	542	67.9	84	1.3	8	22.1	8	34.5
VIC	6,214	4,274	1,074	449	68.8	80	1.3	4	25.1	7	35.6
QLD	3,160	2,176	532	287	68.9	72	2.3	6	24.4	4	37.6
SA	1,865	1,108	277	152	59.4	53	2.8	5	25.0	2	38.7
WA	1,893	1,552	398	182	82.0	59	3.1	3	25.6	5	37.4
ACT	710	425	103	54	59.9	59	8.3	7	24.2	6	36.9
TAS	228	155	44	15	68.0	27	11.8	2	28.4	3	38.1
NT	79	21	7	4	26.6	10	12.7	1	33.3	1	52.4

* For TAS, Italy is the second ranked collaborating country.

TABLE 6B: Number of international collaboration for the cancer literature for each Australian state for each year 1999-2006. (Data according to SCI-SSCI.)

Year	NSW	VIC	QLD	SA	WA	ACT	TAS	NT
1999	276	260	197	107	118	28	5	4
2000	384	321	182	117	89	44	23	1
2001	379	360	198	84	168	28	14	2
2002	461	455	268	83	160	37	15	1
2003	599	550	267	136	197	51	11	6
2004	573	617	316	135	215	69	44	4
2005	726	773	319	184	260	90	16	3
2006	986	938	429	262	345	78	27	0
8-yr period	4,384	4,274	2,176	1,108	1,552	425	155	21

TABLE 6C: Average number of international partners from different countries per 100 publications for each Australian state for the years 1999-2006. (Based on Table 3a and 6B)

Year	NSW (%)	VIC (%)	QLD (%)	SA (%)	WA (%)	ACT (%)	TAS (%)	NT (%)
1999	42.0	45.9	66.6	52.2	64.5	41.2	21.7	36.4
2000	58.0	51.0	58.9	55.7	48.9	47.3	74.2	12.5
2001	53.8	55.9	56.4	44.0	76.7	38.4	48.3	33.3
2002	64.1	66.2	70.3	44.1	80.4	56.9	57.7	14.3
2003	77.8	76.4	72.4	56.7	86.0	62.2	42.3	40.0
2004	62.0	69.6	73.3	52.7	75.4	64.5	133.3	30.8
2005	76.8	78.0	63.7	67.4	92.9	84.9	64.0	30.0
2006	92.1	86.1	82.2	86.8	109.2	67.2	77.1	0.0
8-yr period	67.9	68.8	68.9	59.4	82.0	59.9	68.0	26.6

Appendix TABLE 6: Details of international collaboration in the Australian cancer literature for 1999-2006, by state, according to SCI-SSCI: number of collaborations, number of collaborating countries, and the top five collaborating countries.

NSW 1999-2006

#	Country	no. collab	% collab
1	USA	969	22.1
2	ENGLAND	542	12.4
3	GERMANY	288	6.6
4	CANADA	254	5.8
5	ITALY	220	5.0
total pubs		6452	
total collabs		4384	
total countries		84	

VIC 1999-2006

#	Country	no. collab	% collab
1	USA	1074	25.1
2	ENGLAND	449	10.5
3	GERMANY	323	7.6
4	CANADA	270	6.3
5	FRANCE	215	5.0
total pubs		6214	
total collabs		4274	
total countries		80	

QLD 1999-2006

#	Country	no. collab	% collab
1	USA	532	24.4
2	ENGLAND	287	13.2
3	GERMANY	144	6.6
4	CANADA	118	5.4
5	JAPAN	104	4.8
total pubs		3160	
total collabs		2176	
total countries		72	

SA 1999-2006

#	Country	no. collab	% collab
1	USA	277	25.0
2	ENGLAND	152	13.7
3	GERMANY	76	6.9
4	CANADA	60	5.4
5	NETHERLANDS	53	4.8
total pubs		1865	
total collabs		1108	
total countries		53	

WA 1999-2006

	Country	no. collab	% collab
1	USA	398	25.6
2	ENGLAND	182	11.7
3	CANADA	108	7.0
4	FRANCE	85	5.5
5	GERMANY	83	5.3
total pubs		1893	
total collabs		1552	
total countries		59	

ACT 1999-2006

	Country	no. collab	% collab
1	USA	103	24.2
2	ENGLAND	54	12.7
3	GERMANY	36	8.5
4	CANADA	33	7.8
5	JAPAN	13	3.1
total pubs		710	
total collabs		425	
total countries		59	

TAS 1999-2006

	Country	no. collab	% collab
1	USA	44	28.4
2	ITALY	15	9.7
3	CANADA	13	8.4
4	FRANCE	13	8.4
5	ENGLAND	9	5.8
total pubs		228	
total collabs		155	
total countries		27	

NT 1999-2006

	Country	no. collab	% collab
1	USA	7	33.3
2	ENGLAND	4	19.0
3	PAPUA N GUINEA	3	14.3
4	BELGIUM	1	4.8
5	CANADA	1	4.8
total pubs		79	
total collabs		21	
total countries		10	

TABLE 7A: The number of publications in medicine for the years 1999-2006 both by Australian researchers and in the World, according to Medline.

Year	No. pubs. Australia	No. pubs. World	Australia's share (%)
1999	7,738	462,661	1.7
2000	8,351	490,715	1.7
2001	9,240	519,734	1.8
2002	9,571	542,150	1.8
2003	10,277	568,844	1.8
2004	11,212	602,285	1.9
2005	11,936	637,393	1.9
2006	13,016	657,964	2.0
8-yr period	81,341	4,481,746	1.8

TABLE 7B: The number of publications on cancer for the years 1999-2006 both by Australian researchers and in the World, according to Medline.

Year	No. pubs. Australia	No. pubs. World	Australia's share (%)
1999	1,200	85,805	1.4
2000	1,247	91,009	1.4
2001	1,416	93,878	1.5
2002	1,445	97,590	1.5
2003	1,438	103,712	1.4
2004	1,626	107,983	1.5
2005	1,650	113,902	1.4
2006	1,778	114,677	1.6
8-yr period	11,800	808,556	1.5

TABLE 7C: Publications on cancer as a percentage of publications in medicine, for the years 1999-2006, both by Australian researchers and in the World. (Based on Tables 7A and 7B.)

Year	Australia [cancer / medicine] (%)	World [cancer / medicine] (%)
1999	15.5	18.5
2000	14.9	18.5
2001	15.3	18.1
2002	15.1	18.0
2003	14.0	18.2
2004	14.5	17.9
2005	13.8	17.9
2006	13.7	17.4
8-yr period	14.5	18.0

TABLE 8A: The number of publications in medicine for the years 1999-2006 allocated over the eight Australian states, according to Medline.

Year	NSW	VIC	QLD	SA	WA	ACT	TAS	NT	Total allocation
1999	2,529	2,421	1,093	894	774	317	98	59	8,185
2000	2,709	2,649	1,169	971	792	401	134	49	8,874
2001	2,899	2,967	1,351	1,091	895	485	107	57	9,852
2002	3,035	2,967	1,469	1,085	951	491	128	67	10,193
2003	3,272	3,158	1,545	1,139	1,034	573	169	94	10,984
2004	3,459	3,530	1,757	1,184	1,098	631	156	99	11,914
2005	3,693	3,669	1,978	1,185	1,183	662	185	76	12,631
2006	4,012	4,051	2,169	1,330	1,265	721	186	125	13,859
8-yr period	25,608	25,412	12,531	8,879	7,992	4,281	1,163	626	86,492

TABLE 8B: Each state's percentage of Australian publications in medicine for the years 1999-2006, according to Medline. (Based on Table 8A.)

Year	NSW (%)	VIC (%)	QLD (%)	SA (%)	WA (%)	ACT (%)	TAS (%)	NT (%)	Total allocation (%)
1999	30.9	29.6	13.4	10.9	9.5	3.9	1.2	0.7	100.0
2000	30.5	29.9	13.2	10.9	8.9	4.5	1.5	0.6	100.0
2001	29.4	30.1	13.7	11.1	9.1	4.9	1.1	0.6	100.0
2002	29.8	29.1	14.4	10.6	9.3	4.8	1.3	0.7	100.0
2003	29.8	28.8	14.1	10.4	9.4	5.2	1.5	0.9	100.0
2004	29.0	29.6	14.7	9.9	9.2	5.3	1.3	0.8	100.0
2005	29.2	29.0	15.7	9.4	9.4	5.2	1.5	0.6	100.0
2006	28.9	29.2	15.7	9.6	9.1	5.2	1.3	0.9	100.0
8-yr period	29.6	29.4	14.5	10.3	9.2	4.9	1.3	0.7	

TABLE 9A: The number of publications on cancer for the years 1999-2006 allocated over the eight Australian states, according to Medline.

Year	NSW	VIC	QLD	SA	WA	ACT	TAS	NT	Total allocation
1999	415	372	195	121	110	36	10	6	1,265
2000	431	401	183	132	110	42	15	6	1,320
2001	496	455	233	139	140	45	13	2	1,523
2002	505	475	237	150	118	43	8	5	1,541
2003	486	458	225	165	133	40	10	6	1,523
2004	560	541	244	170	143	51	9	2	1,720
2005	551	554	247	175	157	40	12	3	1,739
2006	584	627	274	172	158	52	16	7	1,890
8-yr period	4,028	3,883	1,838	1,224	1,069	349	93	37	12,521

TABLE 9B: Each state's percentage of Australian publications on cancer for the years 1999-2006, according to Medline. (Based on Table 9A.)

Year	NSW (%)	VIC (%)	QLD (%)	SA (%)	WA (%)	ACT (%)	TAS (%)	NT (%)	Total allocation (%)
1999	32.8	29.4	15.4	9.6	8.7	2.8	0.8	0.5	100.0
2000	32.7	30.4	13.9	10.0	8.3	3.2	1.1	0.5	100.0
2001	32.6	29.9	15.3	9.1	9.2	3.0	0.9	0.1	100.0
2002	32.8	30.8	15.4	9.7	7.7	2.8	0.5	0.3	100.0
2003	31.9	30.1	14.8	10.8	8.7	2.6	0.7	0.4	100.0
2004	32.6	31.5	14.2	9.9	8.3	3.0	0.5	0.1	100.0
2005	31.7	31.9	14.2	10.1	9.0	2.3	0.7	0.2	100.0
2006	30.9	33.2	14.5	9.1	8.4	2.8	0.8	0.4	100.0
8-yr period	32.2	31.0	14.7	9.8	8.5	2.8	0.7	0.3	100.0

TABLE 10: Publications on cancer as a percentage of publications in medicine, for the years 1999-2006, allocated for each Australian state.
(According to *Medline*; based on Tables 8A and 9A.)

Year	NSW (%)	VIC (%)	QLD (%)	SA (%)	WA (%)	ACT (%)	TAS (%)	NT (%)	Total allocation (%)
1999	16.4	15.4	17.8	13.5	14.2	11.4	10.2	10.2	15.5
2000	15.9	15.1	15.7	13.6	13.9	10.5	11.2	12.2	14.9
2001	17.1	15.3	17.2	12.7	15.6	9.3	12.1	3.5	15.5
2002	16.6	16.0	16.1	13.8	12.4	8.8	6.3	7.5	15.1
2003	14.9	14.5	14.6	14.5	12.9	7.0	5.9	6.4	13.9
2004	16.2	15.3	13.9	14.4	13.0	8.1	5.8	2.0	14.4
2005	14.9	15.1	12.5	14.8	13.3	6.0	6.5	3.9	13.8
2006	14.6	15.5	12.6	12.9	12.5	7.2	8.6	5.6	13.6
8-yr period	15.7	15.3	14.7	13.8	13.4	8.2	8.0	5.9	14.5

TABLE 11: Mean Impact Factor for publications in medicine for years 1999-2006 for each Australian state. (Publications from Medline, Impact Factors from JCRs.)

Year	NSW	VIC	QLD	SA	WA	ACT	TAS	NT	Australia
1999	2.50	3.15	2.64	2.68	2.63	3.21	2.09	1.79	2.74
2000	2.66	3.10	2.64	2.44	2.68	3.65	2.42	2.35	2.78
2001	2.64	3.04	2.69	2.46	2.97	3.82	2.68	3.06	2.81
2002	2.68	3.17	2.56	2.61	2.77	3.58	2.53	2.49	2.82
2003	2.70	3.18	2.76	2.59	2.85	3.86	2.37	2.03	2.88
2004	2.76	3.26	2.71	2.61	2.83	3.46	2.54	2.07	2.92
2005	2.85	3.29	2.93	2.67	2.83	3.13	2.63	2.49	2.97
2006	2.97	3.37	3.08	2.81	2.98	3.75	2.84	2.37	3.13
8-yr period	2.72	3.20	2.75	2.61	2.82	3.56	2.51	2.33	2.88

Appendix TABLE 11 (Part 1): Mean Impact Factor for publications in medicine for the years 1999-2006 for each Australian state; Publications from Medline, Impact Factors from JCRs. The number and the percentage of journals without IFs are shown.

NSW					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	2.50	2,529	1,014	167	16.5
2000	2.66	2,709	1,052	176	16.7
2001	2.64	2,899	1,129	224	19.8
2002	2.68	3,035	1,158	207	17.9
2003	2.70	3,272	1,275	251	19.7
2004	2.76	3,459	1,306	265	20.3
2005	2.85	3,693	1,354	292	21.6
2006	2.97	4,012	1,484	347	23.4

8-yr period 2.72 25,608

QLD					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	2.64	1,093	597	95	15.9
2000	2.64	1,169	611	84	13.7
2001	2.69	1,351	708	127	17.9
2002	2.56	1,469	750	133	17.7
2003	2.76	1,545	784	144	18.4
2004	2.71	1,757	851	160	18.8
2005	2.93	1,978	939	196	20.9
2006	3.08	2,169	1,014	202	19.9

8-yr period 2.75 12,531

VIC					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.15	2,421	889	128	14.4
2000	3.10	2,649	1,026	169	16.5
2001	3.04	2,967	1,066	209	19.6
2002	3.17	2,967	1,129	204	18.1
2003	3.18	3,158	1,218	255	20.9
2004	3.26	3,530	1,271	251	19.7
2005	3.29	3,669	1,336	310	23.2
2006	3.37	4,051	1,463	335	22.9

8-yr period 3.20 25,412

SA					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	2.68	894	458	82	17.9
2000	2.44	971	514	83	16.1
2001	2.46	1,091	564	98	17.4
2002	2.61	1,085	585	112	19.1
2003	2.59	1,139	603	127	21.1
2004	2.61	1,184	625	128	20.5
2005	2.67	1,185	619	142	22.9
2006	2.81	1,330	681	153	22.5

8-yr period 2.61 8,879

Appendix TABLE 11 (Part 2):

WA					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	2.63	774	424	64	15.1
2000	2.68	792	439	65	14.8
2001	2.97	895	526	77	14.6
2002	2.77	951	550	91	16.5
2003	2.85	1,034	587	109	18.6
2004	2.83	1,098	606	115	19.0
2005	2.83	1,183	644	133	20.7
2006	2.98	1,265	692	148	21.4
8-yr period	2.82	7,992			

TAS					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	2.09	98	77	11	14.3
2000	2.42	134	95	16	16.8
2001	2.68	107	95	10	10.5
2002	2.53	128	93	16	17.2
2003	2.37	169	110	21	19.1
2004	2.54	156	105	19	18.1
2005	2.63	185	130	22	16.9
2006	2.84	186	144	34	23.6
8-yr period	2.51	1,163			

ACT					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.21	317	200	21	10.5
2000	3.65	401	258	29	11.2
2001	3.82	485	285	42	14.7
2002	3.58	491	288	53	18.4
2003	3.86	573	336	66	19.6
2004	3.46	631	339	55	16.2
2005	3.13	662	374	64	17.1
2006	3.75	721	396	64	16.2
8-yr period	3.56	4,281			

NT					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	1.79	59	35	4	11.4
2000	2.35	49	35	8	22.9
2001	3.06	57	40	10	25.0
2002	2.49	67	50	10	20.0
2003	2.03	94	66	11	16.7
2004	2.07	99	70	14	20.0
2005	2.49	76	57	10	17.5
2006	2.37	125	76	27	35.5
8-yr period	2.33	626			

TABLE 12: Mean Impact Factor for publications on cancer for years 1999-2006 for each Australian state. (Publications from Medline, Impact Factors from JCRs.)

Year	NSW	VIC	QLD	SA	WA	ACT	TAS	NT	Australia
1999	2.65	4.14	3.51	3.16	3.41	4.27	1.97	2.35	3.37
2000	2.99	3.98	3.36	3.00	3.50	3.46	2.46	3.94	3.43
2001	3.00	3.96	3.59	2.76	3.50	3.85	2.21	2.35	3.40
2002	3.00	4.35	3.44	2.97	3.17	3.59	1.92	3.08	3.50
2003	3.64	4.24	3.43	2.87	3.57	4.40	1.91	2.58	3.68
2004	3.41	4.18	3.27	2.74	3.47	3.73	2.39	2.25	3.52
2005	3.40	4.68	3.64	3.15	3.58	3.34	1.91	1.96	3.82
2006	3.42	4.02	3.64	3.46	3.34	4.01	2.19	2.75	3.63
8-yr period	3.19	4.19	3.48	3.01	3.44	3.83	2.12	2.66	3.54

Appendix TABLE 12 (Part 1): Mean Impact Factor for publications on cancer for the years 1999-2006 for each Australian state; Publications from Medline, Impact Factors from JCRs. The number and the percentage of journals without IFs are shown.

NSW					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	2.65	415	240	32	13.3
2000	2.99	431	249	35	14.1
2001	3.00	496	285	49	17.2
2002	3.00	505	277	37	13.4
2003	3.64	486	288	49	17.0
2004	3.41	560	310	60	19.4
2005	3.40	551	303	56	18.5
2006	3.42	584	344	64	18.6
8-yr period	3.19	4,028			

QLD					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.51	195	137	17	12.4
2000	3.36	183	130	13	10.0
2001	3.59	233	171	25	14.6
2002	3.44	237	163	25	15.3
2003	3.43	225	175	28	16.0
2004	3.27	244	174	28	16.1
2005	3.64	247	167	38	22.8
2006	3.64	274	186	48	25.8
8-yr period	3.48	1,838			

VIC					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	4.14	372	217	22	10.1
2000	3.98	401	143	23	16.1
2001	3.96	455	267	43	16.1
2002	4.35	475	285	46	16.1
2003	4.24	458	275	40	14.5
2004	4.18	541	292	57	19.5
2005	4.68	554	301	66	21.9
2006	4.02	627	369	86	23.3
8-yr period	4.19	3,883			

SA					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.16	121	91	16	17.6
2000	3.00	132	99	11	11.1
2001	2.76	139	110	16	14.5
2002	2.97	150	113	22	19.5
2003	2.87	165	128	22	17.2
2004	2.74	170	123	26	21.1
2005	3.15	175	131	25	19.1
2006	3.46	172	131	27	20.6
8-yr period	3.01	1,224			

Appendix TABLE 12 (Part 2):

WA					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	3.41	110	78	10	12.8
2000	3.50	110	83	11	13.3
2001	3.50	140	111	11	9.9
2002	3.17	118	92	8	8.7
2003	3.57	133	106	17	16.0
2004	3.47	143	98	17	17.3
2005	3.58	157	117	25	21.4
2006	3.34	158	129	27	20.9
8-yr period	3.44	1,069			

TAS					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	1.97	10	9	1	11.1
2000	2.46	15	14	3	21.4
2001	2.21	13	13	0	0.0
2002	1.92	8	7	2	28.6
2003	1.91	10	8	1	12.5
2004	2.39	9	6	1	16.7
2005	1.91	12	10	3	30.0
2006	2.19	16	15	3	20.0
8-yr period	2.12	93			

ACT					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	4.27	36	27	2	7.4
2000	3.46	42	38	4	10.5
2001	3.85	45	37	4	10.8
2002	3.59	43	39	6	15.4
2003	4.40	40	35	2	5.7
2004	3.73	51	45	4	8.9
2005	3.34	40	35	8	22.9
2006	4.01	52	50	10	20.0
8-yr period	3.83	349			

NT					
Year	Mean IF	No. Pubs.	No. Jnls	No. Jnls w/o IFs	Jnls w/o IFs (%)
1999	2.35	6	6	0	0.0
2000	3.94	6	6	1	16.7
2001	2.35	2	2	1	50.0
2002	3.08	5	5	1	20.0
2003	2.58	6	6	0	0.0
2004	2.25	2	2	0	0.0
2005	1.96	3	3	0	0.0
2006	2.75	7	7	2	28.6
8-yr period	2.66	37			

TABLE 13: Publications on cancer according to Medline as a percentage of publications on cancer according to SCI-SSCI, for the years 1999-2006, allocated to each Australian state. (Based on Tables 9A and 3A.)

Year	NSW (%)	VIC (%)	QLD (%)	SA (%)	WA (%)	ACT (%)	TAS (%)	NT (%)	Total allocation (%)
1999	63.2	65.7	65.9	59.0	60.1	52.9	43.5	54.5	63.0
2000	65.1	63.7	59.2	62.9	60.4	45.2	48.4	75.0	62.1
2001	70.4	70.7	66.4	72.8	63.9	61.6	44.8	33.3	68.7
2002	70.2	69.1	62.2	79.8	59.3	66.2	30.8	71.4	67.8
2003	63.1	63.6	61.0	68.8	58.1	48.8	38.5	40.0	62.1
2004	60.6	61.1	56.6	66.4	50.2	47.7	27.3	15.4	58.6
2005	58.3	55.9	49.3	64.1	56.1	37.7	48.0	30.0	55.5
2006	54.6	57.5	52.5	57.0	50.0	44.8	45.7	77.8	54.6
8-yr period	62.4	62.5	58.2	65.6	56.5	49.2	40.8	46.8	60.8

TABLE 14A: The number of publications on cancer per 100,000 people for the eight Australian states, for the eight-year period 1999-2006, according to SCI-SSCI. (Publication data from Table 3A; population data from ABS Census, 2001.)

<i>Rank</i>	<i>State</i>	<i>Population</i>	<i>No. pubs allocated to state</i>	<i>No. pubs per 100,000 people</i>
1	ACT	309,184	710	229.6
2	VIC	4,612,097	6,214	134.7
3	SA	1,458,912	1,865	127.8
4	WA	1,832,008	1,893	103.3
5	NSW	6,311,168	6,452	102.2
6	QLD	3,585,639	3,160	88.1
7	TAS	454,841	228	50.1
8	NT	202,729	79	39.0
	Australia	18,766,578	20,522	109.4

TABLE 14B: The number of publications on cancer per 100,000 people for the eight Australian states, for the eight-year period 1999-2006, according to Medline. (Publication data from Table 9A; population data from ABS Census, 2001.)

<i>Rank</i>	<i>State</i>	<i>Population</i>	<i>No. pubs allocated to state</i>	<i>No. pubs per 100,000 people</i>
1	ACT	309,184	349	112.9
2	VIC	4,612,097	3,883	84.2
3	SA	1,458,912	1,224	83.9
4	NSW	6,311,168	4,028	63.8
5	WA	1,832,008	1,069	58.4
6	QLD	3,585,639	1,838	51.3
7	TAS	454,841	93	20.4
8	NT	202,729	37	18.3
	Australia	18,766,578	12,172	64.9

TABLE 15A: The number of publications by body region specific to cancer for the years 1999-2006, both by Australian researchers and in the World, according to Medline.

(Duplicate records, have not been removed.)

Body region	No. pubs. Australia	No. pubs. World	Australia's share (%)
1a Skin – Melanoma	604	24,222	2.5
1b Skin – Non Melanoma	1,257	69,844	1.8
2 Head and Neck	1,981	134,233	1.5
3 Upper Gastrointestinal	1,679	147,287	1.1
4 Colorectal	1,528	90,446	1.7
5 Respiratory	913	81,842	1.1
6 Bone and other connective tissue	962	63,708	1.5
7 Breast	1,410	75,311	1.9
8 Urogenital	1,675	120,311	1.4
9 Gynaecological	754	49,748	1.5
10 Eye	411	22,493	1.8
11 Neurological	1,245	96,920	1.3
12 Thyroid and other endocrine	819	62,391	1.3
13 Lymphohaematopoietic	2,737	185,306	1.5
14 non specific	1,954	133,101	1.5
Total	19,929	1,357,163	1.5

TABLE 15B: Percentage of publications on cancer by body region in relation to all publications on cancer, for the years 1999-2006, according to Medline.

(Based on Table 15A)

Body region	No. pubs. Australia (%)	No. pubs. World (%)
1a Skin – Melanoma	3.0	1.8
1b Skin – Non Melanoma	6.3	5.1
2 Head and Neck	9.9	9.9
3 Upper Gastrointestinal	8.4	10.9
4 Colorectal	7.7	6.7
5 Respiratory	4.6	6.0
6 Bone and other connective tissue	4.8	4.7
7 Breast	7.1	5.5
8 Urogenital	8.4	8.9
9 Gynaecological	3.8	3.7
10 Eye	2.1	1.7
11 Neurological	6.2	7.1
12 Thyroid and other endocrine	4.1	4.6
13 Lymphohaematopoietic	13.7	13.7
14 non specific	9.8	9.8
Total	100.0	100.0

TABLE 16A: The number of publications by body region specific to cancer for each year 1999-2006 by the World, according to Medline.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	2,608	2,725	2,849	2,978	3,167	3,222	3,308	3,365	24,222
1b Skin – Non Melanoma	7,622	7,997	8,165	8,169	9,031	9,221	9,716	9,923	69,844
2 Head and Neck	14,182	15,282	15,748	16,092	17,267	17,953	18,967	18,742	134,233
3 Upper Gastrointestinal	15,834	16,501	17,145	17,829	18,594	19,653	21,060	20,671	147,287
4 Colorectal	9,807	10,228	10,503	11,057	11,509	12,090	12,672	12,580	90,446
5 Respiratory	8,554	8,985	9,378	9,840	10,498	11,185	11,574	11,828	81,842
6 Bone and other connective tissue	7,155	7,409	7,605	7,793	8,322	8,374	8,653	8,397	63,708
7 Breast	7,627	8,313	8,576	9,138	9,705	10,285	10,836	10,831	75,311
8 Urogenital	12,726	13,367	13,791	14,288	15,694	16,274	17,070	17,101	120,311
9 Gynaecological	5,441	5,659	5,799	5,809	6,437	6,663	6,878	7,062	49,748
10 Eye	2,619	2,659	2,725	2,620	2,867	2,884	3,112	3,007	22,493
11 Neurological	10,669	11,576	11,617	11,580	12,266	12,632	13,427	13,153	96,920
12 Thyroid and other endocrine	7,078	7,402	7,449	7,601	7,810	7,978	8,429	8,644	62,391
13 Lymphohaematopoietic	20,719	22,007	22,075	23,027	23,965	23,682	25,128	24,703	185,306
14 non specific	13,798	14,598	15,536	16,081	17,236	18,184	18,670	18,998	133,101
Total	146,439	154,708	158,961	163,902	174,368	180,280	189,500	189,005	

TABLE 16B: Percentage of publications on cancer by body region for each year 1999-2006 by the World, according to Medline. (Based on Table 16A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8
1b Skin – Non Melanoma	5.2	5.2	5.1	5.0	5.2	5.1	5.1	5.3	5.1
2 Head and Neck	9.7	9.9	9.9	9.8	9.9	10.0	10.0	9.9	9.9
3 Upper Gastrointestinal	10.8	10.7	10.8	10.9	10.7	10.9	11.1	10.9	10.8
4 Colorectal	6.7	6.6	6.6	6.7	6.6	6.7	6.7	6.7	6.7
5 Respiratory	5.8	5.8	5.9	6.0	6.0	6.2	6.1	6.3	6.0
6 Bone and other connective tissue	4.9	4.8	4.8	4.8	4.8	4.6	4.6	4.4	4.7
7 Breast	5.2	5.4	5.4	5.6	5.6	5.7	5.7	5.7	5.5
8 Urogenital	8.7	8.6	8.7	8.7	9.0	9.0	9.0	9.0	8.9
9 Gynaecological	3.7	3.7	3.6	3.5	3.7	3.7	3.6	3.7	3.7
10 Eye	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.7
11 Neurological	7.3	7.5	7.3	7.1	7.0	7.0	7.1	7.0	7.2
12 Thyroid and other endocrine	4.8	4.8	4.7	4.6	4.5	4.4	4.4	4.6	4.6
13 Lymphohaematopoietic	14.1	14.2	13.9	14.0	13.7	13.1	13.3	13.1	13.7
14 non specific	9.4	9.4	9.8	9.8	9.9	10.1	9.9	10.1	9.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 17A: The number of publications by body region specific to cancer for each year 1999-2006 by Australia, according to Medline.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	56	58	81	71	73	84	87	94	604
1b Skin – Non Melanoma	121	121	145	152	173	181	175	189	1,257
2 Head and Neck	168	219	222	229	256	285	294	308	1,981
3 Upper Gastrointestinal	188	211	191	231	185	234	226	213	1,679
4 Colorectal	152	196	206	192	166	199	192	225	1,528
5 Respiratory	69	81	105	104	102	144	164	144	913
6 Bone and other connective tissue	94	97	130	122	120	101	154	144	962
7 Breast	150	138	155	183	179	194	215	196	1,410
8 Urogenital	163	159	219	196	213	251	223	251	1,675
9 Gynaecological	72	78	99	81	92	112	105	115	754
10 Eye	32	42	42	42	58	73	51	71	411
11 Neurological	114	161	137	145	145	164	171	208	1,245
12 Thyroid and other endocrine	95	89	96	112	103	106	107	111	819
13 Lymphohaematopoietic	310	309	353	328	302	374	375	386	2,737
14 non specific	190	187	220	262	260	267	278	290	1,954
	1,974	2,146	2,401	2,450	2,427	2,769	2,817	2,945	

TABLE 17B: Percentage of publications on cancer by body region for each year 1999-2006 by Australia, according to Medline. (Based on Table 17A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	2.8	2.7	3.4	2.9	3.0	3.0	3.1	3.2	3.0
1b Skin – Non Melanoma	6.1	5.6	6.0	6.2	7.1	6.5	6.2	6.4	6.3
2 Head and Neck	8.5	10.2	9.2	9.3	10.5	10.3	10.4	10.5	9.9
3 Upper Gastrointestinal	9.5	9.8	8.0	9.4	7.6	8.5	8.0	7.2	8.5
4 Colorectal	7.7	9.1	8.6	7.8	6.8	7.2	6.8	7.6	7.7
5 Respiratory	3.5	3.8	4.4	4.2	4.2	5.2	5.8	4.9	4.5
6 Bone and other connective tissue	4.8	4.5	5.4	5.0	4.9	3.6	5.5	4.9	4.8
7 Breast	7.6	6.4	6.5	7.5	7.4	7.0	7.6	6.7	7.1
8 Urogenital	8.3	7.4	9.1	8.0	8.8	9.1	7.9	8.5	8.4
9 Gynaecological	3.6	3.6	4.1	3.3	3.8	4.0	3.7	3.9	3.8
10 Eye	1.6	2.0	1.7	1.7	2.4	2.6	1.8	2.4	2.0
11 Neurological	5.8	7.5	5.7	5.9	6.0	5.9	6.1	7.1	6.2
12 Thyroid and other endocrine	4.8	4.1	4.0	4.6	4.2	3.8	3.8	3.8	4.1
13 Lymphohaematopoietic	15.7	14.4	14.7	13.4	12.4	13.5	13.3	13.1	13.8
14 non specific	9.6	8.7	9.2	10.7	10.7	9.6	9.9	9.8	9.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 18: Percentage of Australia's share of publications worldwide by body region specific to cancer for each year 1999-2006, according to Medline. (Based on 16A and 17A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)
1a Skin – Melanoma	2.1	2.1	2.8	2.4	2.3	2.6	2.6	2.8
1b Skin – Non Melanoma	1.6	1.5	1.8	1.9	1.9	2.0	1.8	1.9
2 Head and Neck	1.2	1.4	1.4	1.4	1.5	1.6	1.6	1.6
3 Upper Gastrointestinal	1.2	1.3	1.1	1.3	1.0	1.2	1.1	1.0
4 Colorectal	1.5	1.9	2.0	1.7	1.4	1.6	1.5	1.8
5 Respiratory	0.8	0.9	1.1	1.1	1.0	1.3	1.4	1.2
6 Bone and other connective tissue	1.3	1.3	1.7	1.6	1.4	1.2	1.8	1.7
7 Breast	2.0	1.7	1.8	2.0	1.8	1.9	2.0	1.8
8 Urogenital	1.3	1.2	1.6	1.4	1.4	1.5	1.3	1.5
9 Gynaecological	1.3	1.4	1.7	1.4	1.4	1.7	1.5	1.6
10 Eye	1.2	1.6	1.5	1.6	2.0	2.5	1.6	2.4
11 Neurological	1.1	1.4	1.2	1.3	1.2	1.3	1.3	1.6
12 Thyroid and other endocrine	1.3	1.2	1.3	1.5	1.3	1.3	1.3	1.3
13 Lymphohaematopoietic	1.5	1.4	1.6	1.4	1.3	1.6	1.5	1.6
14 non specific	1.4	1.3	1.4	1.6	1.5	1.5	1.5	1.5
Average share	1.2	1.4	1.5	1.5	1.4	1.5	1.5	1.6

TABLE 19A: The number of publications by body region specific to cancer for the years 1999-2006, both by Australian researchers and by worldwide researchers, according to SCI-SSCI.
(Duplicate records, have not been removed.)

Body region	No. pubs. Australia	No. pubs. World	Australia's share (%)
1a Skin – Melanoma	1,087	31,753	3.4
1b Skin – Non Melanoma	1,416	55,056	2.6
2 Head and Neck	2,825	118,600	2.4
3 Upper Gastrointestinal	2,306	137,911	1.7
4 Colorectal	2,514	99,534	2.5
5 Respiratory	1,665	86,597	1.9
6 Bone and other connective tissue	1,427	63,125	2.3
7 Breast	3,197	113,109	2.8
8 Urogenital	2,412	118,016	2.0
9 Gynaecological	1,003	42,923	2.3
10 Eye	518	20,277	2.6
11 Neurological	1,672	91,177	1.8
12 Thyroid and other endocrine	1,154	58,405	2.0
13 Lymphohaematopoietic	4,115	197,199	2.1
14 non specific	2,958	134,245	2.2
Total	30,269	1,367,927	2.2

TABLE 19B: Each body region's percentage of publications on cancer in relation to all publications on cancer for the years 1999-2006, according to SCI-SSCI.

(Based on Table 19A)

Body region	No. pubs. Australia (%)	No. pubs. World (%)
1a Skin – Melanoma	3.6	2.3
1b Skin – Non Melanoma	4.7	4.0
2 Head and Neck	9.3	8.7
3 Upper Gastrointestinal	7.6	10.1
4 Colorectal	8.3	7.3
5 Respiratory	5.5	6.3
6 Bone and other connective tissue	4.7	4.6
7 Breast	10.6	8.3
8 Urogenital	8.0	8.6
9 Gynaecological	3.3	3.1
10 Eye	1.7	1.5
11 Neurological	5.5	6.7
12 Thyroid and other endocrine	3.8	4.3
13 Lymphohaematopoietic	13.6	14.4
14 non specific	9.8	9.8
Total	100.0	100.0

TABLE 20A: The number of publications by body region specific to cancer for each year 1999-2006, by the World, according to SCI-SSCI.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	3,555	3,434	3,695	3,829	4,020	4,282	4,346	4,592	31,753
1b Skin – Non Melanoma	5,934	6,085	6,300	6,456	6,927	7,261	7,760	8,333	55,056
2 Head and Neck	12,556	13,090	13,496	13,945	14,714	15,772	17,207	17,820	118,600
3 Upper Gastrointestinal	15,322	15,577	15,737	16,617	17,031	17,945	19,065	20,617	137,911
4 Colorectal	10,812	11,244	11,224	11,882	12,064	13,372	13,957	14,979	99,534
5 Respiratory	8,845	8,874	9,352	9,664	10,246	11,930	13,894	13,792	86,597
6 Bone and other connective tissue	7,140	7,220	7,503	7,643	7,959	8,240	8,738	8,682	63,125
7 Breast	10,927	11,072	12,216	13,331	14,162	15,768	17,377	18,256	113,109
8 Urogenital	11,704	11,935	12,807	13,815	15,191	16,195	17,470	18,899	118,016
9 Gynaecological	4,837	4,938	4,861	4,945	5,413	5,682	5,962	6,285	42,923
10 Eye	2,483	2,417	2,602	2,403	2,572	2,564	2,670	2,566	20,277
11 Neurological	10,325	10,626	10,639	10,460	11,105	12,038	12,630	13,354	91,177
12 Thyroid and other endocrine	6,894	6,810	6,997	7,080	7,275	7,323	7,824	8,202	58,405
13 Lymphohaematopoietic	22,404	22,473	22,917	23,776	24,743	25,333	27,654	27,899	197,199
14 non specific	14,509	14,181	14,464	15,528	16,384	18,425	19,350	21,404	134,245
Total	148,247	149,976	154,810	161,374	169,806	182,130	195,904	205,680	

TABLE 20B: Percentage of publications by body region specific to cancer for each year 1999-2006, by the World, according to SCI-SSCI. (Based on Table 20A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	2.4	2.3	2.4	2.4	2.4	2.4	2.2	2.2	2.3
1b Skin – Non Melanoma	4.0	4.1	4.1	4.0	4.1	4.0	4.0	4.1	4.0
2 Head and Neck	8.5	8.7	8.7	8.6	8.7	8.7	8.8	8.7	8.7
3 Upper Gastrointestinal	10.3	10.4	10.2	10.3	10.0	9.9	9.7	10.0	10.1
4 Colorectal	7.3	7.5	7.3	7.4	7.1	7.3	7.1	7.3	7.3
5 Respiratory	6.0	5.9	6.0	6.0	6.0	6.6	7.1	6.7	6.3
6 Bone and other connective tissue	4.8	4.8	4.8	4.7	4.7	4.5	4.5	4.2	4.6
7 Breast	7.4	7.4	7.9	8.3	8.3	8.7	8.9	8.9	8.2
8 Urogenital	7.9	8.0	8.3	8.6	8.9	8.9	8.9	9.2	8.6
9 Gynaecological	3.3	3.3	3.1	3.1	3.2	3.1	3.0	3.1	3.1
10 Eye	1.7	1.6	1.7	1.5	1.5	1.4	1.4	1.2	1.5
11 Neurological	7.0	7.1	6.9	6.5	6.5	6.6	6.4	6.5	6.7
12 Thyroid and other endocrine	4.7	4.5	4.5	4.4	4.3	4.0	4.0	4.0	4.3
13 Lymphohaematopoietic	15.1	15.0	14.8	14.7	14.6	13.9	14.1	13.6	14.5
14 non specific	9.8	9.5	9.3	9.6	9.6	10.1	9.9	10.4	9.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 21A: The number of publications by body region specific to cancer for each year 1999-2006, by Australia, according to SCI-SSCI.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	127	102	108	112	133	143	162	200	1,087
1b Skin – Non Melanoma	143	127	137	150	188	198	218	255	1,416
2 Head and Neck	248	297	277	316	346	420	437	484	2,825
3 Upper Gastrointestinal	245	265	247	300	250	348	301	350	2,306
4 Colorectal	287	310	308	306	272	327	297	407	2,514
5 Respiratory	139	147	184	169	190	248	288	300	1,665
6 Bone and other connective tissue	168	131	178	169	164	203	211	203	1,427
7 Breast	294	332	321	367	384	472	520	507	3,197
8 Urogenital	214	248	254	266	289	368	375	398	2,412
9 Gynaecological	118	101	122	107	127	141	143	144	1,003
10 Eye	52	50	51	55	62	74	78	96	518
11 Neurological	174	181	179	172	188	240	254	284	1,672
12 Thyroid and other endocrine	129	132	123	137	155	142	156	180	1,154
13 Lymphohaematopoietic	498	420	478	457	456	566	610	630	4,115
14 non specific	220	316	312	323	355	392	424	616	2,958
	3,056	3,159	3,279	3,406	3,559	4,282	4,474	5,054	

TABLE 21B: Percentage of publications by body region specific to cancer for each year 1999-2006, by Australia, according to SCI-SSCI. (Based on Table 21A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	4.2	3.2	3.3	3.3	3.7	3.3	3.6	4.0	3.6
1b Skin – Non Melanoma	4.7	4.0	4.2	4.4	5.3	4.6	4.9	5.0	4.6
2 Head and Neck	8.1	9.4	8.4	9.3	9.7	9.8	9.8	9.6	9.3
3 Upper Gastrointestinal	8.0	8.4	7.5	8.8	7.0	8.1	6.7	6.9	7.7
4 Colorectal	9.4	9.8	9.4	9.0	7.6	7.6	6.6	8.1	8.4
5 Respiratory	4.5	4.7	5.6	5.0	5.3	5.8	6.4	5.9	5.4
6 Bone and other connective tissue	5.5	4.1	5.4	5.0	4.6	4.7	4.7	4.0	4.8
7 Breast	9.6	10.5	9.8	10.8	10.8	11.0	11.6	10.0	10.5
8 Urogenital	7.0	7.9	7.7	7.8	8.1	8.6	8.4	7.9	7.9
9 Gynaecological	3.9	3.2	3.7	3.1	3.6	3.3	3.2	2.8	3.4
10 Eye	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.9	1.7
11 Neurological	5.7	5.7	5.5	5.0	5.3	5.6	5.7	5.6	5.5
12 Thyroid and other endocrine	4.2	4.2	3.8	4.0	4.4	3.3	3.5	3.6	3.9
13 Lymphohaematopoietic	16.3	13.3	14.6	13.4	12.8	13.2	13.6	12.5	13.7
14 non specific	7.2	10.0	9.5	9.5	10.0	9.2	9.5	12.2	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 22: Percentage of Australia's share of publications worldwide by body region specific to cancer for each year 1999-2006, according to SCI-SSCI. (Based on 20A and 21A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)
1a Skin – Melanoma	3.6	3.0	2.9	2.9	3.3	3.3	3.7	4.4
1b Skin – Non Melanoma	2.4	2.1	2.2	2.3	2.7	2.7	2.8	3.1
2 Head and Neck	2.0	2.3	2.1	2.3	2.4	2.7	2.5	2.7
3 Upper Gastrointestinal	1.6	1.7	1.6	1.8	1.5	1.9	1.6	1.7
4 Colorectal	2.7	2.8	2.7	2.6	2.3	2.4	2.1	2.7
5 Respiratory	1.6	1.7	2.0	1.7	1.9	2.1	2.1	2.2
6 Bone and other connective tissue	2.4	1.8	2.4	2.2	2.1	2.5	2.4	2.3
7 Breast	2.7	3.0	2.6	2.8	2.7	3.0	3.0	2.8
8 Urogenital	1.8	2.1	2.0	1.9	1.9	2.3	2.1	2.1
9 Gynaecological	2.4	2.0	2.5	2.2	2.3	2.5	2.4	2.3
10 Eye	2.1	2.1	2.0	2.3	2.4	2.9	2.9	3.7
11 Neurological	1.7	1.7	1.7	1.6	1.7	2.0	2.0	2.1
12 Thyroid and other endocrine	1.9	1.9	1.8	1.9	2.1	1.9	2.0	2.2
13 Lymphohaematopoietic	2.2	1.9	2.1	1.9	1.8	2.2	2.2	2.3
14 non specific	1.5	2.2	2.2	2.1	2.2	2.1	2.2	2.9
Average share	1.9	2.1	2.1	2.1	2.1	2.4	2.3	2.5

TABLE 23A: Publications from Medline and SCI-SSCI on cancer 1999-2006 combined for NSW.

(Duplicates have been removed, SCI-SSCI data based on Table 3A, Medline based on Table 9A)

Year	SCI-SSCI	Medline	Unique
1999	657	415	781
2000	662	431	796
2001	705	496	859
2002	719	505	871
2003	770	486	919
2004	924	560	1,084
2005	945	551	1,103
2006	1,070	584	1,229
Total	6,452	4,028	7,642

TABLE 23B: Publications from Medline and SCI-SSCI on cancer 1999 to 2006 combined for VIC.

(Duplicates have been removed, SCI-SSCI data based on Table 3A, Medline based on Table 9A)

Year	SCI-SSCI	Medline	Unique
1999	566	372	704
2000	630	401	755
2001	644	455	782
2002	687	475	850
2003	720	458	872
2004	886	541	1,059
2005	991	554	1,168
2006	1,090	627	1,273
Total	6,214	3,883	7,463

TABLE 23C: Publications from Medline and SCI-SSCI on cancer 1999 to 2006 combined for QLD.
(Duplicates have been removed, SCI-SSCI data based on Table 3A, Medline based on Table 9A)

Year	SCI-SSCI	Medline	Unique
1999	296	195	360
2000	309	183	359
2001	351	233	425
2002	381	237	440
2003	369	225	432
2004	431	244	488
2005	501	247	572
2006	522	274	585
Total	3,160	1,838	3,661

TABLE 23D: Publications from Medline and SCI-SSCI on cancer 1999 to 2006 combined for WA.
(Duplicates have been removed, SCI-SSCI data based on Table 3A, Medline based on Table 9A)

Year	SCI-SSCI	Medline	Unique
1999	183	110	213
2000	182	110	216
2001	219	140	260
2002	199	118	232
2003	229	133	267
2004	285	143	325
2005	280	157	328
2006	316	158	366
Total	1,893	1,069	2,207

TABLE 23E: Publications from Medline and SCI-SSCI on cancer 1999 to 2006 combined for SA, ACT, TAS & NT.

(Duplicates have been removed, SCI-SSCI data based on Table 3A, Medline based on Table 9A)

Year	SCI-SSCI*	Medline*	Unique
1999	307	173	354
2000	342	195	398
2001	299	199	375
2002	286	206	359
2003	363	221	425
2004	409	232	475
2005	414	230	479
2006	462	247	531
Total	2,882	1,703	3,396

* Values are summed up as of TABLE 3A and 9A and therefore contain duplicates for publications with collaborations among those states.

TABLE 24A: The number of publications by body region specific to cancer for each year 1999-2006, by NSW, according to Medline combined with SCI-SSCI.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	44	52	64	38	57	82	76	85	498
1b Skin – Non Melanoma	59	72	72	77	93	109	115	119	716
2 Head and Neck	124	141	143	130	155	175	206	214	1,288
3 Upper Gastrointestinal	124	107	107	133	111	137	139	157	1,015
4 Colorectal	98	112	113	112	100	136	112	152	935
5 Respiratory	57	51	62	66	67	109	119	113	644
6 Bone and other connective tissue	58	56	81	71	65	65	86	77	559
7 Breast	126	126	121	143	152	168	171	183	1,190
8 Urogenital	94	97	123	98	133	145	150	154	994
9 Gynaecological	52	46	51	32	62	63	65	69	440
10 Eye	19	30	19	26	28	47	28	44	241
11 Neurological	77	85	91	91	83	129	110	135	801
12 Thyroid and other endocrine	62	53	56	62	65	74	76	86	534
13 Lymphohaematopoietic	181	164	183	167	199	216	233	246	1,589
14 non specific	111	137	147	152	155	168	167	215	1,252
Total	1,286	1,329	1,433	1,398	1,525	1,823	1,853	2,049	

TABLE 24B: Percentage of publications by body region specific cancer for each year 1999-2006, by NSW, according to Medline combined with SCI-SSCI. (Based on Table 24A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	3.4	3.9	4.5	2.7	3.7	4.5	4.1	4.1	3.9
1b Skin – Non Melanoma	4.6	5.4	5.0	5.5	6.1	6.0	6.2	5.8	5.6
2 Head and Neck	9.6	10.6	10.0	9.3	10.2	9.6	11.1	10.4	10.1
3 Upper Gastrointestinal	9.6	8.1	7.5	9.5	7.3	7.5	7.5	7.7	8.1
4 Colorectal	7.6	8.4	7.9	8.0	6.6	7.5	6.0	7.4	7.4
5 Respiratory	4.4	3.8	4.3	4.7	4.4	6.0	6.4	5.5	5.0
6 Bone and other connective tissue	4.5	4.2	5.7	5.1	4.3	3.6	4.6	3.8	4.5
7 Breast	9.8	9.5	8.4	10.2	10.0	9.2	9.2	8.9	9.4
8 Urogenital	7.3	7.3	8.6	7.0	8.7	8.0	8.1	7.5	7.8
9 Gynaecological	4.0	3.5	3.6	2.3	4.1	3.5	3.5	3.4	3.5
10 Eye	1.5	2.3	1.3	1.9	1.8	2.6	1.5	2.1	1.9
11 Neurological	6.0	6.4	6.4	6.5	5.4	7.1	5.9	6.6	6.3
12 Thyroid and other endocrine	4.8	4.0	3.9	4.4	4.3	4.1	4.1	4.2	4.2
13 Lymphohaematopoietic	14.1	12.3	12.8	11.9	13.0	11.8	12.6	12.0	12.6
14 non specific	8.6	10.3	10.3	10.9	10.2	9.2	9.0	10.5	9.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 25A: The number of publications by body region specific to cancer for each year 1999-2006, by QLD, according to Medline combined with SCI-SSCI.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	41	23	30	40	39	35	49	67	324
1b Skin – Non Melanoma	54	43	49	58	68	61	72	74	479
2 Head and Neck	51	74	76	82	89	93	107	113	685
3 Upper Gastrointestinal	48	56	56	72	49	59	41	50	431
4 Colorectal	56	70	63	67	50	54	54	78	492
5 Respiratory	27	30	34	38	30	56	49	51	315
6 Bone and other connective tissue	27	22	27	36	24	37	40	43	256
7 Breast	39	51	57	73	62	80	111	98	571
8 Urogenital	46	53	62	58	58	74	78	69	498
9 Gynaecological	21	24	35	18	26	33	27	24	208
10 Eye	17	10	10	13	24	10	17	24	125
11 Neurological	33	37	34	33	39	44	53	37	310
12 Thyroid and other endocrine	19	23	31	28	28	18	33	20	200
13 Lymphohaematopoietic	89	64	94	100	79	122	99	124	771
14 non specific	43	57	68	69	88	81	113	116	635
Total	611	637	726	785	753	857	943	988	

TABLE 25B: Percentage of publications by body region specific to cancer for each year 1999-2006, by QLD, according to Medline combined with SCI-SSCI. (Based on Table 25A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	6.7	3.6	4.1	5.1	5.2	4.1	5.2	6.8	5.1
1b Skin – Non Melanoma	8.8	6.8	6.7	7.4	9.0	7.1	7.6	7.5	7.6
2 Head and Neck	8.3	11.6	10.5	10.4	11.8	10.9	11.3	11.4	10.8
3 Upper Gastrointestinal	7.9	8.8	7.7	9.2	6.5	6.9	4.3	5.1	7.0
4 Colorectal	9.2	11.0	8.7	8.5	6.6	6.3	5.7	7.9	8.0
5 Respiratory	4.4	4.7	4.7	4.8	4.0	6.5	5.2	5.2	4.9
6 Bone and other connective tissue	4.4	3.5	3.7	4.6	3.2	4.3	4.2	4.4	4.0
7 Breast	6.4	8.0	7.9	9.3	8.2	9.3	11.8	9.9	8.8
8 Urogenital	7.5	8.3	8.5	7.4	7.7	8.6	8.3	7.0	7.9
9 Gynaecological	3.4	3.8	4.8	2.3	3.5	3.9	2.9	2.4	3.4
10 Eye	2.8	1.6	1.4	1.7	3.2	1.2	1.8	2.4	2.0
11 Neurological	5.4	5.8	4.7	4.2	5.2	5.1	5.6	3.7	5.0
12 Thyroid and other endocrine	3.1	3.6	4.3	3.6	3.7	2.1	3.5	2.0	3.2
13 Lymphohaematopoietic	14.6	10.0	12.9	12.7	10.5	14.2	10.5	12.6	12.3
14 non specific	7.0	8.9	9.4	8.8	11.7	9.5	12.0	11.7	9.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 26A: The number of publications by body region specific to cancer for each year 1999-2006, by VIC, according to Medline combined with SCI-SSCI.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	26	26	26	33	33	36	46	58	284
1b Skin – Non Melanoma	60	45	58	55	66	75	72	98	529
2 Head and Neck	72	108	120	147	117	140	161	191	1,056
3 Upper Gastrointestinal	85	89	100	109	97	144	132	131	887
4 Colorectal	112	115	129	136	106	120	138	149	1,005
5 Respiratory	42	53	67	66	68	73	99	93	561
6 Bone and other connective tissue	68	67	83	86	80	97	105	108	694
7 Breast	94	103	108	127	142	152	177	168	1,071
8 Urogenital	90	121	128	131	137	178	158	178	1,121
9 Gynaecological	53	46	58	53	53	61	60	64	448
10 Eye	11	17	24	22	24	23	28	35	184
11 Neurological	75	97	82	80	84	126	105	140	789
12 Thyroid and other endocrine	56	62	58	67	75	67	86	85	556
13 Lymphohaematopeitic	221	196	229	205	217	277	339	325	2,009
14 non specific	112	127	110	154	149	183	190	222	1,247
Total	1,177	1,272	1,380	1,471	1,448	1,752	1,896	2,045	

TABLE 26B: Percentage of publications by body region specific to cancer for each year 1999-2006, by VIC, according to Medline combined with SCI-SSCI. (Based on Table 26A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	2.2	2.0	1.9	2.2	2.3	2.1	2.4	2.8	2.2
1b Skin – Non Melanoma	5.1	3.5	4.2	3.7	4.6	4.3	3.8	4.8	4.3
2 Head and Neck	6.1	8.5	8.7	10.0	8.1	8.0	8.5	9.3	8.4
3 Upper Gastrointestinal	7.2	7.0	7.2	7.4	6.7	8.2	7.0	6.4	7.1
4 Colorectal	9.5	9.0	9.3	9.2	7.3	6.8	7.3	7.3	8.2
5 Respiratory	3.6	4.2	4.9	4.5	4.7	4.2	5.2	4.5	4.5
6 Bone and other connective tissue	5.8	5.3	6.0	5.8	5.5	5.5	5.5	5.3	5.6
7 Breast	8.0	8.1	7.8	8.6	9.8	8.7	9.3	8.2	8.6
8 Urogenital	7.6	9.5	9.3	8.9	9.5	10.2	8.3	8.7	9.0
9 Gynaecological	4.5	3.6	4.2	3.6	3.7	3.5	3.2	3.1	3.7
10 Eye	0.9	1.3	1.7	1.5	1.7	1.3	1.5	1.7	1.5
11 Neurological	6.4	7.6	5.9	5.4	5.8	7.2	5.5	6.8	6.3
12 Thyroid and other endocrine	4.8	4.9	4.2	4.6	5.2	3.8	4.5	4.2	4.5
13 Lymphohaematopoietic	18.8	15.4	16.6	13.9	15.0	15.8	17.9	15.9	16.2
14 non specific	9.5	10.0	8.0	10.5	10.3	10.4	10.0	10.9	9.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 27A: The number of publications by body region specific to cancer for each year 1999-2006, by WA, according to Medline combined with SCI-SSCI.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	12	13	7	11	17	13	16	24	324
1b Skin – Non Melanoma	7	11	7	7	17	23	19	25	479
2 Head and Neck	32	26	25	30	52	58	46	52	685
3 Upper Gastrointestinal	37	44	34	38	32	56	45	44	431
4 Colorectal	29	31	50	42	34	54	41	59	492
5 Respiratory	22	27	35	26	38	43	53	49	315
6 Bone and other connective tissue	26	11	15	16	22	24	32	22	256
7 Breast	23	25	30	27	27	53	53	52	571
8 Urogenital	27	29	27	32	31	47	49	38	498
9 Gynaecological	5	5	7	13	12	19	19	14	208
10 Eye	8	7	9	6	8	6	9	3	125
11 Neurological	19	17	21	22	24	27	20	35	310
12 Thyroid and other endocrine	8	17	18	13	16	19	20	22	200
13 Lymphohaematopoietic	73	55	67	57	73	78	79	76	771
14 non specific	25	32	46	39	48	38	50	58	635
Total	353	350	398	379	451	558	551	573	

TABLE 27B: Percentage of publications by body region specific to cancer for each year 1999-2006, by WA, according to Medline combined with SCI-SSCI. (Based on Table 27A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	3.4	3.7	1.8	2.9	3.8	2.3	2.9	4.2	3.1
1b Skin – Non Melanoma	2.0	3.1	1.8	1.8	3.8	4.1	3.4	4.4	3.1
2 Head and Neck	9.1	7.4	6.3	7.9	11.5	10.4	8.3	9.1	8.8
3 Upper Gastrointestinal	10.5	12.6	8.5	10.0	7.1	10.0	8.2	7.7	9.3
4 Colorectal	8.2	8.9	12.6	11.1	7.5	9.7	7.4	10.3	9.5
5 Respiratory	6.2	7.7	8.8	6.9	8.4	7.7	9.6	8.6	8.0
6 Bone and other connective tissue	7.4	3.1	3.8	4.2	4.9	4.3	5.8	3.8	4.7
7 Breast	6.5	7.1	7.5	7.1	6.0	9.5	9.6	9.1	7.8
8 Urogenital	7.6	8.3	6.8	8.4	6.9	8.4	8.9	6.6	7.7
9 Gynaecological	1.4	1.4	1.8	3.4	2.7	3.4	3.4	2.4	2.5
10 Eye	2.3	2.0	2.3	1.6	1.8	1.1	1.6	0.5	1.6
11 Neurological	5.4	4.9	5.3	5.8	5.3	4.8	3.6	6.1	5.2
12 Thyroid and other endocrine	2.3	4.9	4.5	3.4	3.5	3.4	3.6	3.8	3.7
13 Lymphohaematopoietic	20.7	15.7	16.8	15.0	16.2	14.0	14.3	13.3	15.8
14 non specific	7.1	9.1	11.6	10.3	10.6	6.8	9.1	10.1	9.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	6.0	5.9	6.0	6.0	6.0	6.6	7.1	6.7	6.3

TABLE 28A: The number of publications by body region specific to cancer for each year 1999-2006, by SA, ACT, TAS & NT, according to Medline combined with SCI-SSCI.

Body region	1999	2000	2001	2002	2003	2004	2005	2006	Total
1a Skin – Melanoma	15	15	11	16	19	20	17	20	133
1b Skin – Non Melanoma	21	28	24	19	43	40	47	36	258
2 Head and Neck	43	62	34	40	83	88	91	84	525
3 Upper Gastrointestinal	61	70	53	59	72	95	74	85	569
4 Colorectal	63	68	54	51	64	66	70	79	515
5 Respiratory	13	26	34	20	25	38	55	45	256
6 Bone and other connective tissue	34	24	35	29	34	42	41	34	273
7 Breast	48	57	43	56	58	59	54	68	443
8 Urogenital	34	38	43	46	54	50	62	61	388
9 Gynaecological	14	18	13	22	11	23	22	26	149
10 Eye	10	7	7	10	14	28	21	22	119
11 Neurological	26	37	29	24	32	35	43	37	263
12 Thyroid and other endocrine	26	27	30	24	20	17	24	26	194
13 Lymphohaematopoietic	82	83	100	81	83	113	113	105	760
14 non specific	62	81	70	75	73	75	90	120	646
Total	552	641	580	572	685	789	824	848	

TABLE 28B: Percentage of publications by body region specific to cancer for each year 1999-2006, by SA, ACT, TAS & NT, according to Medline combined with SCI-SSCI. (Based on Table 28A)

Body region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	8-year period (%)
1a Skin – Melanoma	2.7	2.3	1.9	2.8	2.8	2.5	2.1	2.4	2.4
1b Skin – Non Melanoma	3.8	4.4	4.1	3.3	6.3	5.1	5.7	4.2	4.6
2 Head and Neck	7.8	9.7	5.9	7.0	12.1	11.2	11.0	9.9	9.3
3 Upper Gastrointestinal	11.1	10.9	9.1	10.3	10.5	12.0	9.0	10.0	10.4
4 Colorectal	11.4	10.6	9.3	8.9	9.3	8.4	8.5	9.3	9.5
5 Respiratory	2.4	4.1	5.9	3.5	3.6	4.8	6.7	5.3	4.5
6 Bone and other connective tissue	6.2	3.7	6.0	5.1	5.0	5.3	5.0	4.0	5.0
7 Breast	8.7	8.9	7.4	9.8	8.5	7.5	6.6	8.0	8.2
8 Urogenital	6.2	5.9	7.4	8.0	7.9	6.3	7.5	7.2	7.1
9 Gynaecological	2.5	2.8	2.2	3.8	1.6	2.9	2.7	3.1	2.7
10 Eye	1.8	1.1	1.2	1.7	2.0	3.5	2.5	2.6	2.1
11 Neurological	4.7	5.8	5.0	4.2	4.7	4.4	5.2	4.4	4.8
12 Thyroid and other endocrine	4.7	4.2	5.2	4.2	2.9	2.2	2.9	3.1	3.7
13 Lymphohaematopoietic	14.9	12.9	17.2	14.2	12.1	14.3	13.7	12.4	14.0
14 non specific	11.2	12.6	12.1	13.1	10.7	9.5	10.9	14.2	11.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 29 (Part1): Percentage of publications by body region specific to cancer for NSW, VIC, QLD, WA and the other Australian states compined from 1999-2006. (Based on Table 24A, 25A, 26A, 27A, 28A)

For all years the average shares of publications were for: NSW 31.4%, for VIC 30.8%, QLD 15.6%, WA 8.9% and the other States 13.2%.

1a. Skin – Melanoma						1b. Skin – Non Melanoma						2. Head and Neck					
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)		NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)		NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	31.9	18.8	29.7	8.7	10.9	1999	29.4	29.9	26.9	3.5	10.4	1999	38.5	22.4	15.8	9.9	13.4
2000	40.3	20.2	17.8	10.1	11.6	2000	36.2	22.6	21.6	5.5	14.1	2000	34.3	26.3	18.0	6.3	15.1
2001	46.4	18.8	21.7	5.1	8.0	2001	34.3	27.6	23.3	3.3	11.4	2001	35.9	30.2	19.1	6.3	8.5
2002	27.5	23.9	29.0	8.0	11.6	2002	35.6	25.5	26.9	3.2	8.8	2002	30.3	34.3	19.1	7.0	9.3
2003	34.5	20.0	23.6	10.3	11.5	2003	32.4	23.0	23.7	5.9	15.0	2003	31.3	23.6	17.9	10.5	16.7
2004	44.1	19.4	18.8	7.0	10.8	2004	35.4	24.4	19.8	7.5	13.0	2004	31.6	25.3	16.8	10.5	15.9
2005	37.3	22.5	24.0	7.8	8.3	2005	35.4	22.2	22.2	5.8	14.5	2005	33.7	26.4	17.5	7.5	14.9
2006	33.5	22.8	26.4	9.4	7.9	2006	33.8	27.8	21.0	7.1	10.2	2006	32.7	29.2	17.3	8.0	12.8
Total	36.8	21.0	24.0	8.4	9.8	Total	34.1	25.2	22.8	5.5	12.3	Total	33.2	27.3	17.7	8.3	13.5

3. Upper Gastrointestinal						4. Colorectal						5. Respiratory					
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)		NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)		NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	34.9	23.9	13.5	10.4	17.2	1999	27.4	31.3	15.6	8.1	17.6	1999	35.4	26.1	16.8	13.7	8.1
2000	29.2	24.3	15.3	12.0	19.1	2000	28.3	29.0	17.7	7.8	17.2	2000	27.3	28.3	16.0	14.4	13.9
2001	30.6	28.6	16.0	9.7	15.1	2001	27.6	31.5	15.4	12.2	13.2	2001	26.7	28.9	14.7	15.1	14.7
2002	32.4	26.5	17.5	9.2	14.4	2002	27.5	33.3	16.4	10.3	12.5	2002	30.6	30.6	17.6	12.0	9.3
2003	30.7	26.9	13.6	8.9	19.9	2003	28.2	29.9	14.1	9.6	18.1	2003	29.4	29.8	13.2	16.7	11.0
2004	27.9	29.3	12.0	11.4	19.3	2004	31.6	27.9	12.6	12.6	15.3	2004	34.2	22.9	17.6	13.5	11.9
2005	32.3	30.6	9.5	10.4	17.2	2005	27.0	33.3	13.0	9.9	16.9	2005	31.7	26.4	13.1	14.1	14.7
2006	33.6	28.1	10.7	9.4	18.2	2006	29.4	28.8	15.1	11.4	15.3	2006	32.2	26.5	14.5	14.0	12.8
Total	32.8	28.7	13.9	10.7	13.9	Total	28.4	30.6	15.0	10.3	15.7	Total	31.1	27.1	15.2	14.2	12.4

TABLE 29 (Part 2):

	6. Bone & connect. tissue				
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	27.2	31.9	12.7	12.2	16.0
2000	31.1	37.2	12.2	6.1	13.3
2001	33.6	34.4	11.2	6.2	14.5
2002	29.8	36.1	15.1	6.7	12.2
2003	28.9	35.6	10.7	9.8	15.1
2004	24.5	36.6	14.0	9.1	15.8
2005	28.3	34.5	13.2	10.5	13.5
2006	27.1	38.0	15.1	7.7	12.0
Total	28.7	35.6	13.1	8.6	14.0

	7. Breast				
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	38.2	28.5	11.8	7.0	14.5
2000	34.8	28.5	14.1	6.9	15.7
2001	33.7	30.1	15.9	8.4	12.0
2002	33.6	29.8	17.1	6.3	13.1
2003	34.5	32.2	14.1	6.1	13.2
2004	32.8	29.7	15.6	10.4	11.5
2005	30.2	31.3	19.6	9.4	9.5
2006	32.2	29.5	17.2	9.1	12.0
Total	33.4	30.0	16.0	8.1	12.4

	8. Urogenital				
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	32.3	30.9	15.8	9.3	11.7
2000	28.7	35.8	15.7	8.6	11.2
2001	32.1	33.4	16.2	7.0	11.2
2002	26.8	35.9	15.9	8.8	12.6
2003	32.2	33.2	14.0	7.5	13.1
2004	29.4	36.0	15.0	9.5	10.1
2005	30.2	31.8	15.7	9.9	12.5
2006	30.8	35.6	13.8	7.6	12.2
Total	30.3	34.2	15.2	8.5	11.8

	9. Gynaecological				
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	35.9	36.6	14.5	3.4	9.7
2000	33.1	33.1	17.3	3.6	12.9
2001	31.1	35.4	21.3	4.3	7.9
2002	23.2	38.4	13.0	9.4	15.9
2003	37.8	32.3	15.9	7.3	6.7
2004	31.7	30.7	16.6	9.5	11.6
2005	33.7	31.1	14.0	9.8	11.4
2006	35.0	32.5	12.2	7.1	13.2
Total	32.9	33.5	15.5	7.0	11.1

	10. Eye				
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	29.2	16.9	26.2	12.3	15.4
2000	42.3	23.9	14.1	9.9	9.9
2001	27.5	34.8	14.5	13.0	10.1
2002	33.8	28.6	16.9	7.8	13.0
2003	28.6	24.5	24.5	8.2	14.3
2004	41.2	20.2	8.8	5.3	24.6
2005	27.2	27.2	16.5	8.7	20.4
2006	34.4	27.3	18.8	2.3	17.2
Total	33.2	25.4	17.2	7.7	16.4

	11. Neurological				
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	33.5	32.6	14.3	8.3	11.3
2000	31.1	35.5	13.6	6.2	13.6
2001	35.4	31.9	13.2	8.2	11.3
2002	36.4	32.0	13.2	8.8	9.6
2003	31.7	32.1	14.9	9.2	12.2
2004	35.7	34.9	12.2	7.5	9.7
2005	33.2	31.7	16.0	6.0	13.0
2006	35.2	36.5	9.6	9.1	9.6
Total	34.1	33.6	13.2	7.9	11.2

TABLE 29 (Part 3):

12. Thyroid & endocrine						13. Lymphohaematopoietic						14. non specific					
	NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)		NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)		NSW (%)	VIC (%)	QLD (%)	WA (%)	other (%)
1999	36.3	32.7	11.1	4.7	15.2	1999	28.0	34.2	13.8	11.3	12.7	1999	31.4	31.7	12.2	7.1	17.6
2000	29.1	34.1	12.6	9.3	14.8	2000	29.2	34.9	11.4	9.8	14.8	2000	31.6	29.3	13.1	7.4	18.7
2001	29.0	30.1	16.1	9.3	15.5	2001	27.2	34.0	14.0	10.0	14.9	2001	33.3	24.9	15.4	10.4	15.9
2002	32.0	34.5	14.4	6.7	12.4	2002	27.4	33.6	16.4	9.3	13.3	2002	31.1	31.5	14.1	8.0	15.3
2003	31.9	36.8	13.7	7.8	9.8	2003	30.6	33.3	12.1	11.2	12.7	2003	30.2	29.0	17.2	9.4	14.2
2004	37.9	34.4	9.2	9.7	8.7	2004	26.8	34.4	15.1	9.7	14.0	2004	30.8	33.6	14.9	7.0	13.8
2005	31.8	36.0	13.8	8.4	10.0	2005	27.0	39.3	11.5	9.2	13.1	2005	27.4	31.1	18.5	8.2	14.8
2006	36.0	35.6	8.4	9.2	10.9	2006	28.1	37.1	14.2	8.7	12.0	2006	29.4	30.4	15.9	7.9	16.4
Total	33.0	34.4	12.4	8.2	12.0	Total	27.9	35.3	13.6	9.8	13.4	Total	30.4	30.3	15.4	8.2	15.7

TABLE 30A: The number of cancer publications in the broad research areas for each year 1999-2006, by NSW, according to SCI-SSCI.

	Basic Research	Public Health	Clinical Research	Psycho- / Behavioural	Total
1999	357	17	471	36	879
2000	360	22	417	101	900
2001	392	23	493	37	945
2002	395	29	485	40	948
2003	413	18	504	65	998
2004	489	30	618	69	1,207
2005	469	40	646	70	1,225
2006	531	48	684	106	1,368

TABLE 30B: Percentage of cancer publications in the broad research areas for each year 1999-2006, by NSW, according to SCI-SSCI.

	Basic Research (%)	Public Health (%)	Clinical Research (%)	Psycho- / Behavioural (%)	Total (%)
1999	40.6	1.9	53.5	4.0	100.0
2000	40.0	2.4	46.4	11.2	100.0
2001	41.5	2.4	52.2	3.9	100.0
2002	41.7	3.0	51.1	4.2	100.0
2003	41.3	1.8	50.5	6.5	100.0
2004	40.5	2.5	51.2	5.7	100.0
2005	38.3	3.3	52.7	5.7	100.0
2006	38.8	3.5	50.0	7.7	100.0
Average	40.34	2.59	50.95	6.11	

TABLE 31A: The number of cancer publications in the broad research areas for each year 1999-2006, by VIC, according to SCI-SSCI.

	Basic Research	Public Health	Clinical Research	Psycho- / Behavioural	Total
1999	386	13	371	17	786
2000	395	18	396	91	899
2001	403	19	438	31	890
2002	452	27	410	37	926
2003	442	24	468	47	981
2004	510	37	590	47	1,183
2005	601	34	647	47	1,328
2006	611	38	722	72	1,443

TABLE 31B: Percentage of cancer publications in the broad research areas for each year 1999-2006, by VIC, according to SCI-SSCI.

	Basic Research (%)	Public Health (%)	Clinical Research (%)	Psycho- / Behavioural (%)	Total (%)
1999	49.1	1.6	47.2	2.1	100.0
2000	43.9	1.9	44.0	10.1	100.0
2001	45.2	2.1	49.2	3.5	100.0
2002	48.8	2.9	44.3	4.0	100.0
2003	45.0	2.5	47.7	4.8	100.0
2004	43.1	3.1	49.9	3.9	100.0
2005	45.2	2.6	48.7	3.5	100.0
2006	42.4	2.6	50.0	5.0	100.0
Average	45.34	2.42	47.63	4.61	

TABLE 32A: The number of cancer publications in the broad research areas for each year 1999-2006, by QLD, SA, WA, ACT, TAS, NT, according to SCI-SSCI.

	Basic Research	Public Health	Clinical Research	Psycho- / Behavioural	Total
1999	482	31	489	31	1,034
2000	468	33	491	82	1,074
2001	512	38	522	42	1,113
2002	475	45	529	45	1,094
2003	501	49	550	66	1,167
2004	633	62	630	69	1,393
2005	599	65	712	78	1,454
2006	639	81	751	120	1,591

TABLE 32B: Percentage of cancer publications in the broad research areas for each year 1999-2006, by QLD, SA, WA, ACT, TAS, NT, according to SCI-SSCI.

	Basic Research (%)	Public Health (%)	Clinical Research (%)	Psycho- / Behavioural (%)	Total (%)
1999	46.6	3.0	47.3	3.0	100.0
2000	43.6	3.1	45.7	7.6	100.0
2001	46.0	3.4	46.9	3.8	100.0
2002	43.4	4.1	48.4	4.1	100.0
2003	43.0	4.2	47.2	5.6	100.0
2004	45.4	4.4	45.2	4.9	100.0
2005	41.2	4.5	49.0	5.3	100.0
2006	40.2	5.1	47.2	7.5	100.0
Average	43.67	3.98	47.11	5.23	

TABLE 33A: The number of cancer publications in basic research for each year 1999-2006, by Australia, according to SCI-SSCI.

	NSW	VIC	other	Total
1999	357	386	482	1,225
2000	360	395	468	1,223
2001	392	403	512	1,307
2002	395	452	475	1,322
2003	413	442	501	1,356
2004	489	510	633	1,632
2005	469	601	599	1,669
2006	531	611	639	1,781

TABLE 33B: Percentage of cancer publications in basic research for each year 1999-2006, by Australia, according to SCI-SSCI.

	NSW (%)	VIC (%)	other (%)	Total (%)
1999	29.1	31.5	39.4	100.0
2000	29.5	32.3	38.3	100.0
2001	30.0	30.8	39.2	100.0
2002	29.9	34.2	35.9	100.0
2003	30.4	32.6	37.0	100.0
2004	30.0	31.2	38.8	100.0
2005	28.1	36.0	35.9	100.0
2006	29.8	34.3	35.9	100.0
Average	29.6	32.9	37.5	

TABLE 34A: The number of cancer publications on public health for each year 1999-2006, by Australia, according to SCI-SSCI.

	NSW	VIC	other	Total
1999	17	13	31	61
2000	22	18	33	73
2001	23	19	38	79
2002	29	27	45	101
2003	18	24	49	91
2004	30	37	62	128
2005	40	34	65	140
2006	48	38	81	167

TABLE 34B: Percentage of cancer publications on public health for each year 1999-2006, by Australia, according to SCI-SSCI.

	NSW (%)	VIC (%)	other (%)	Total (%)
1999	27.2	21.2	51.6	100.0
2000	29.9	24.1	46.0	100.0
2001	28.8	23.6	47.6	100.0
2002	28.5	27.0	44.5	100.0
2003	19.2	26.5	54.3	100.0
2004	23.4	28.5	48.1	100.0
2005	28.8	24.4	46.9	100.0
2006	28.8	22.6	48.5	100.0
Average	26.8	24.7	48.4	

TABLE 35A: The number of cancer publications in clinical research for each year 1999-2006, by Australia, according to SCI-SSCI.

	NSW	VIC	other	Total
1999	471	371	489	1,331
2000	417	396	491	1,305
2001	493	438	522	1,453
2002	485	410	529	1,424
2003	504	468	550	1,522
2004	618	590	630	1,838
2005	646	647	712	2,005
2006	684	722	751	2,157

TABLE 35B: Percentage of cancer publications in clinical research for each year 1999-2006, by Australia, according to SCI-SSCI.

	NSW (%)	VIC (%)	other (%)	Total (%)
1999	35.4	27.9	36.8	100.0
2000	32.0	30.4	37.7	100.0
2001	33.9	30.1	35.9	100.0
2002	34.0	28.8	37.2	100.0
2003	33.1	30.8	36.2	100.0
2004	33.6	32.1	34.3	100.0
2005	32.2	32.3	35.5	100.0
2006	31.7	33.5	34.8	100.0
Average	33.2	30.7	36.0	

TABLE 36A: The number of cancer publications on psycho-/behavioural research for each year 1999-2006, by Australia, according to SCI-SSCI.

	NSW	VIC	other	Total
1999	36	17	31	83
2000	101	91	82	274
2001	37	31	42	110
2002	40	37	45	121
2003	65	47	66	177
2004	69	47	69	184
2005	70	47	78	194
2006	106	72	120	297

TABLE 36B: Percentage of cancer publications on psycho-/behavioural research for each year 1999-2006, by Australia, according to SCI-SSCI.

	NSW (%)	VIC (%)	other (%)	Total (%)
1999	42.8	19.9	37.3	100.0
2000	36.9	33.3	29.8	100.0
2001	33.6	28.3	38.1	100.0
2002	32.6	30.5	36.9	100.0
2003	36.4	26.5	37.1	100.0
2004	37.6	25.2	37.2	100.0
2005	35.9	24.0	40.1	100.0
2006	35.5	24.2	40.3	100.0
Average	36.4	26.5	37.1	

TABLE 37: Percentage of Publications for each year 1999-2006, by Research Hubs in NSW. (according to author affiliation)

Hub	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)
Northern Sydney	8.0	9.5	7.4	9.2	6.5	6.6	7.9	9.2
Hunter	9.7	7.9	8.6	7.6	8.7	8.7	8.1	8.4
Western Sydney	15.0	11.8	14.6	14.5	12.8	12.6	14.2	12.9
Darlinghurst	9.91	9.45	9.09	9.04	7.02	7.02	7.98	7.38
Randwick	16.73	19.2	18.41	19.24	20.09	20.05	17.71	19.31
SW Sydney	1.9	2.3	1.9	2.2	2.0	2.0	2.4	2.5
Central Sydney	33.2	34.1	36.6	30.9	36.6	36.6	36.4	33.6
Illawarra	2.1	1.1	0.9	1.4	1.1	1.1	0.9	1.3
Distrib Rural	0.2	0.4	0.2	0.2	0.3	0.3	0.5	0.6
Charles Stuart	0.3	0.4	0.2	0.5	0.1	0.1	0.1	0.3
ANSTO	0.2	0.2	0.1	0.3	0.3	0.3	0.3	0.2
CSIRO	1.1	1.2	0.3	1.0	0.5	0.5	0.1	0.2
Unclassified	1.7	2.3	1.6	3.7	4.1	4.1	3.4	4.2
Total	100	100	100	100	100	100	100	100

TABLE 38A: Number of Publications for each year 1999-2006, by Research Hubs and Affiliation in NSW. (according to author affiliation)

Hub	Affiliation	1999	2000	2001	2002	2003	2004	2005	2006
Northern Sydney	Macquarie University	3	7	5	7	9	9	8	17
	University of Sydney	73	84	98	104	105	105	115	158
	Not affiliated	25	37	24	48	39	41	61	55
Hunter	U. of Newcastle	105	94	120	128	195	195	178	193
	U. of New England	7	1	8	3	5	5	3	5
	Not affiliated	10	11	20	1	5	5	8	12
Western Sydney	University of Sydney	178	150	233	246	288	287	309	286
	UWS	3	6	9	4	7	7	13	23
	Not affiliated	8	3	8	0	5	3	9	14
Darlinghurst	UNSW	91	101	121	139	147	147	160	160
	Not affiliated	34	26	35	17	18	18	26	25
Randwick	UNSW	207	240	276	309	426	425	363	428
	Not affiliated	4	18	40	23	46	46	50	56
SW Sydney	UNSW	24	31	33	38	46	48	57	63
	Not affiliated								
Central Sydney	University of Sydney	368	391	541	485	792	798	767	763
	UTS	6	14	12	5	18	18	7	11
	Not affiliated	45	53	75	44	50	43	74	68
Illawarra	U of Wollongong	14	12	14	16	19	19	16	28
	Not affiliated	12	3	1	9	6	6	6	4
Distrib Rural		3	6	4	4	6	6	11	15
Charles Stuart		4	6	4	8	3	3	3	7
ANSTO		2	3	1	6	8	8	7	6
CSIRO		14	16	6	18	11	11	2	5
Unclassified		21	31	28	64	96	96	79	104
Total		1261	1344	1716	1726	2350	2349	2332	2506

TABLE 38B: Percentage of Publications for each year 1999-2006, by Research Hubs and Affiliation in NSW. (according to author affiliation)

Hub	Affiliation	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)
Northern Sydney	Macquarie University	0.2	0.5	0.3	0.4	0.4	0.4	0.3	0.7
	University of Sydney	5.8	6.3	5.7	6.0	4.5	4.5	4.9	6.3
	Not affiliated	2.0	2.8	1.4	2.8	1.7	1.7	2.6	2.2
Hunter	U. of Newcastle	8.3	7.0	7.0	7.4	8.3	8.3	7.6	7.7
	U. of New England	0.6	0.1	0.5	0.2	0.2	0.2	0.1	0.2
	Not affiliated	0.8	0.8	1.2	0.1	0.2	0.2	0.3	0.5
Western Sydney	University of Sydney	14.1	11.2	13.6	14.3	12.3	12.2	13.3	11.4
	UWS	0.2	0.4	0.5	0.2	0.3	0.3	0.6	0.9
	Not affiliated	0.6	0.2	0.5	0.0	0.2	0.1	0.4	0.6
Darlinghurst	UNSW	7.2	7.5	7.1	8.1	6.3	6.3	6.9	6.4
	Not affiliated	2.7	1.9	2.0	1.0	0.8	0.8	1.1	1.0
Randwick	UNSW	16.4	17.9	16.1	17.9	18.1	18.1	15.6	17.1
	Not affiliated	0.3	1.3	2.3	1.3	2.0	2.0	2.1	2.2
SW Sydney	UNSW	1.9	2.3	1.9	2.2	2.0	2.0	2.4	2.5
	Not affiliated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Central Sydney	University of Sydney	29.2	29.1	31.5	28.1	33.7	34.0	32.9	30.4
	UTS	0.5	1.0	0.7	0.3	0.8	0.8	0.3	0.4
	Not affiliated	3.6	3.9	4.4	2.5	2.1	1.8	3.2	2.7
Illawarra	U of Wollongong	1.1	0.9	0.8	0.9	0.8	0.8	0.7	1.1
	Not affiliated	1.0	0.2	0.1	0.5	0.3	0.3	0.3	0.2
Distrib Rural		0.2	0.4	0.2	0.2	0.3	0.3	0.5	0.6
Charles Stuart		0.3	0.4	0.2	0.5	0.1	0.1	0.1	0.3
ANSTO		0.2	0.2	0.1	0.3	0.3	0.3	0.3	0.2
CSIRO		1.1	1.2	0.3	1.0	0.5	0.5	0.1	0.2
Unclassified		1.7	2.3	1.6	3.7	4.1	4.1	3.4	4.2
Total		100	100	100	100	100	100	100	100