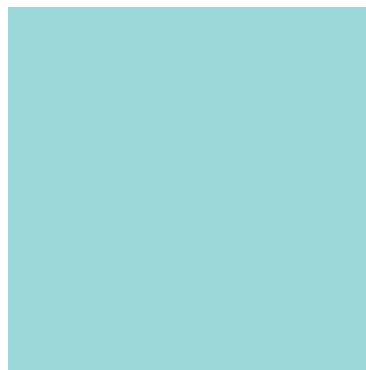
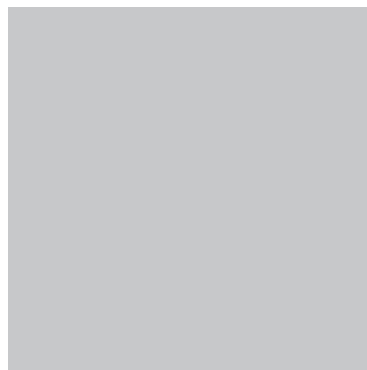
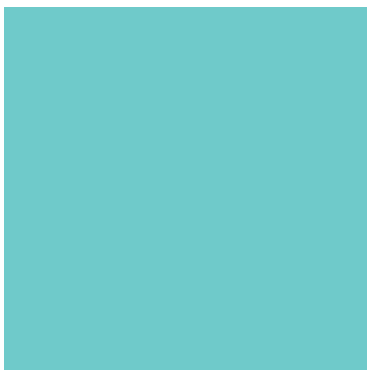
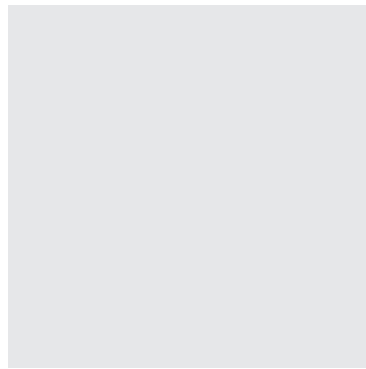
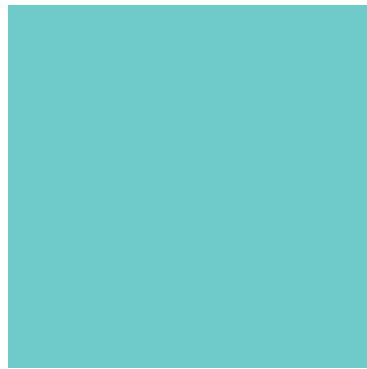
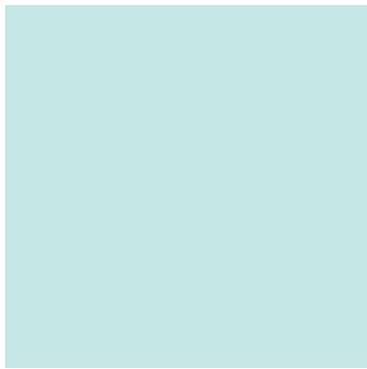
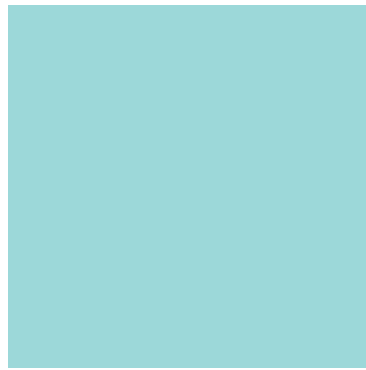
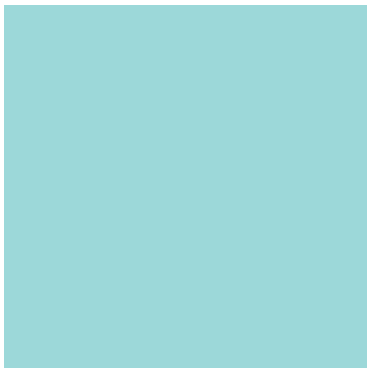


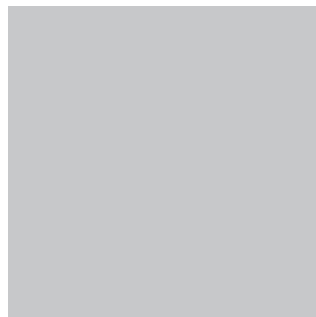
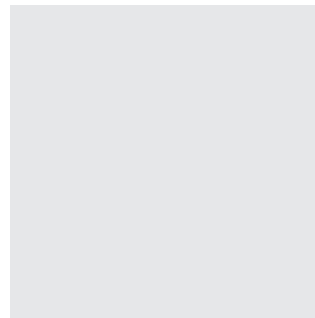
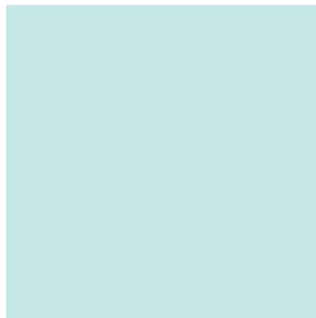
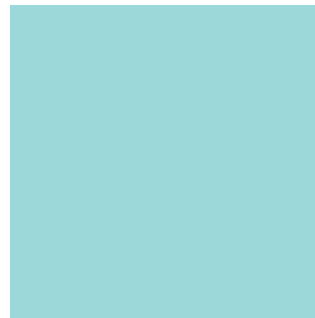
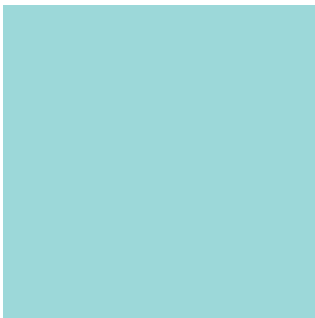
WORTH EVERY CENT AND MORE

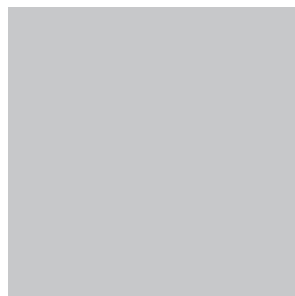
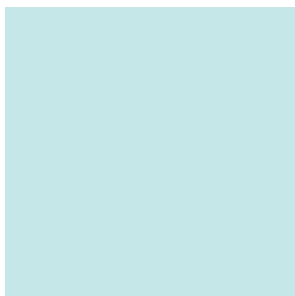
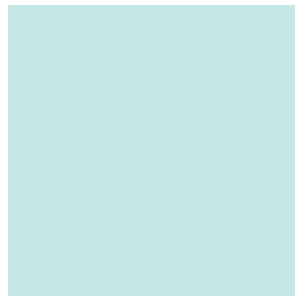
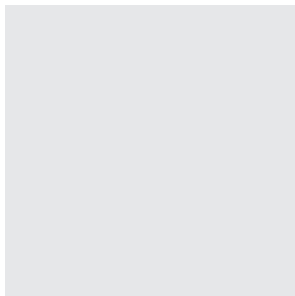
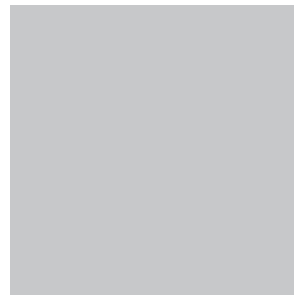
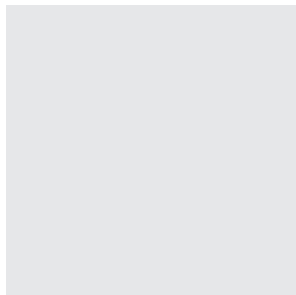
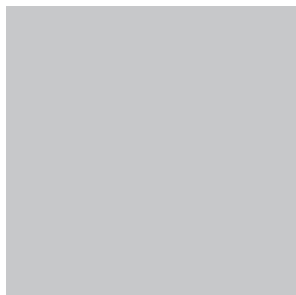
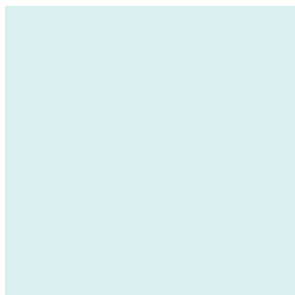
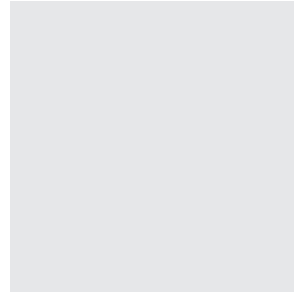
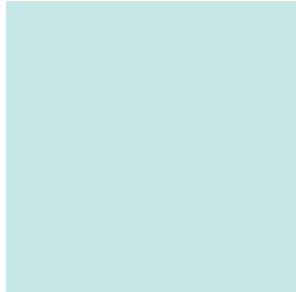
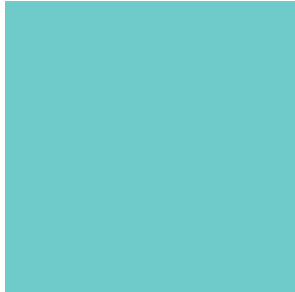
An independent assessment of the return on investment of health libraries in Australia



WORTH EVERY CENT AND MORE

An independent assessment of the return on investment of health libraries in Australia





INTRODUCTION

Health Libraries Inc (based in Victoria) and Health Libraries Australia (a national group of the Australian Library and Information Association) have collaborated to carry out this investigation into the return on investment of health library and information services¹ in Australia.

The partners commissioned award-winning firm SGS Economics and Planning to survey health libraries across the nation and from this to assess the return on the annual investment in these services to their organisations. The survey took place between June and September 2013, and was supplemented by in-depth case studies.

The indicative result from this work is that health libraries have been found to return \$9 for every \$1 invested — and that's a conservative estimate of their real contribution. For example, it takes into account the time saved by medical practitioners in searching for answers, but it does not take into account the improved quality of the results supplied by trained information specialists. It looks at how much it would cost users to have to buy the information they gain for free from the library, but it does not assess the savings achieved by library staff negotiating advantageous prices with information suppliers.

The results provide a snapshot of the continued outstanding value of health libraries against a backdrop of significantly greater usage but declining investment. Over the last three years, the majority of health libraries have remained static or experienced a decrease in their print/e-resources budget, staff hours and space.

The purpose of this report is to assist library and information professionals to present the business case for health libraries within their organisation. By doing so, we hope health libraries will be able to maintain their excellent service to medical practitioners; a service which impacts directly on positive health outcomes for patients.

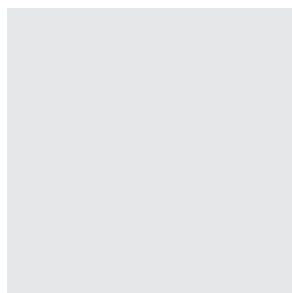
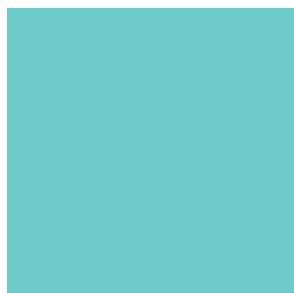
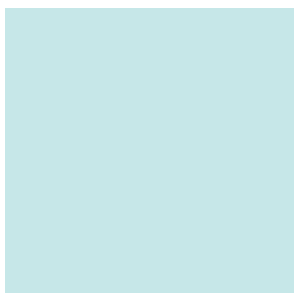
Jane Edwards
President
Health Libraries Inc

Ann Ritchie
Convener
ALIA Health Libraries Australia

¹ In this report, we talk about health libraries, as this is a commonly used term, but many prefer to call them health information services.

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THE BODY OF EVIDENCE

This report is based on two complementary pieces of research developed collaboratively by Health Libraries Inc (HLInc) and ALIA Health Libraries Australia (HLA):

- The main focus is on the new report *Community returns generated by Australian industry libraries* produced by SGS Economics, and published by the Australian Library and Information Association (ALIA) on behalf of HLInc and HLA, in October 2013. This report can be found on the ALIA² and HLInc³ websites.
- Behind this lies *Questions of Life and Death, an investigation into the value of health library and information services in Australia*, an initiative of HLInc, supported by ALIA, in October 2012. This report can also be found on the HLInc and ALIA websites.

The findings in both these reports are supported by a range of other studies of health library and information services around the world. Examples of these studies can be found in the appended literature review.

The hospital library service was invaluable to the completion of my doctoral thesis. The library staff were friendly, efficient and professional. Without their help I would have been unable to perform the highly sensitive search strategy that cumulated in the first published systematic review of the performance of screening algorithms in pulmonary hypertension in scleroderma. Their capacity to source important medical literature was vital to my research and everyday clinical practice.

The library environment was an important venue for study and teaching. Additional services such as copy services and poster printing added convenience. I clearly highly recommend this library, and believe it a valuable resource for staff and students alike.

MEDICAL CONSULTANT



2 <http://www.alia.org.au>

3 <http://www.hlinc.org.au>

AN OUTSTANDING DOLLAR RETURN

According to independent economists SGS Economics & Planning, Australian health libraries return an average of \$9 for every dollar invested. SGS says this is a conservative estimate and the true value of health libraries is likely to be even higher.

SGS assessed the benefits provided directly to health library users, including time saved and value of 'out-of-pocket' expenses such as journal subscriptions. However, the user focus of the study omitted the return on investment in terms of patient care, and SGS said 'it is highly likely that the benefits of industry libraries outweigh their costs considerably'.

Nine dollars-worth of value for every dollar invested is the indicative finding from *Community returns generated by Australian industry libraries, 2013*. This initial report into the return on investment of special libraries was based on a survey of industry libraries, supported by a number of in-depth case studies. There was a strong participation rate for Australian health libraries, with approximately 16% of the nation's estimated 300 health library and information services submitting returns.

Sample case studies demonstrate the range of activities undertaken by health libraries, together with the successes and the challenges.

The literature searches conducted by the library staff have been extremely helpful in supporting the work that I do.

The mental health update is always full of useful articles and information and is a 'must read' for all mental health staff.

I have used the library training rooms and have always found the library staff welcoming and helpful.

MENTAL HEALTH CLINICIAN



CASE STUDY 1 – QUEENSLAND

- Innovative library and information service serving nearly 1600 health professionals
- Commercially available resources include databases, ebooks, ejournals, print reference collection; there are also brochures, flyers, conference papers, articles, reports, policy documents and other items which would not be easily accessible without a library service
- Benefits to users including time saving, currency of information, EBP support, training, information literacy support, research, discovery tools and processes
- The budget for materials has been reduced over the last two years and the staffing is now down to one librarian, however she brings specialist knowledge and a high client focus
- The main impact of the service is in improved patient outcomes. Provision of information on the latest EBP has a positive impact on clinicians' practice and treatment of patients.

CASE STUDY 2 – VICTORIA

- Busy library and information service handling more than 2,000 requests for research, literature reviews, reference enquiries and document delivery each year
- Clients benefit from an on-site collection, loan materials and remote access to online journals, books and databases
- The service supports professional development for clinicians, aids original research and helps improve patient safety
- Lack of space, increasing subscription costs and an inflexible budget are all issues facing the small team, which operates on a tight funding basis of approximately \$460,000 per annum.



A SIGNIFICANT IMPACT ON PATIENT CARE

This economic value assessment supports earlier work, published in *Questions of Life and Death, an investigation into the value of health library and information services*, designed to determine the value and impact of Australian health libraries, looking at the benefits for medical practitioners and the outcomes for patients.

The results confirmed the significant contribution made by library and information services, through their service delivery, technology, space, collections, and most of all, the surveys confirmed the value of employing qualified library and information professionals.

ROLE OF HEALTH LIBRARY AND INFORMATION SERVICES

The role of health library and information services could be summarised under four headings:

1. THE PROVISION OF ESSENTIAL INFORMATION

98% of users had borrowed items

90% had used books

86% had used electronic resources

64% had used print journals

2. THE PROVISION OF EXPERT ASSISTANCE

84% of users had been helped by staff

3. THE PROVISION OF SUPPORT SERVICES

41% of users had used copying facilities

38% had used document delivery

36% had used literature review

30% had used training

4. THE PROVISION OF FACILITIES

70% of users had studied in the library

69% had used computers in the library

USAGE OF HEALTH LIBRARY AND INFORMATION SERVICES

The usage of health library and information services could also be summarised under four headings:

1. SKILLS DEVELOPMENT

66% of users used it for professional development

27% used it for teaching/supervision

2. SERVICE IMPROVEMENT

57% used it for patient care

12% used it for service development and planning

3. INNOVATION

53% used it for personal research

11% used it for funded research

4. DUE DILIGENCE

5% used it for legal/ethical issues

4% used it for audit

62% of service users had asked a library and information professional to carry out information searches for them; 75% of those who had, said it improved the quality of the information received and 71% said it saved them time.

Use of the service depended on respondents' roles and responsibilities. The low percentages recorded for "service development and planning", "legal/ethical issues" and "audit" reflected the fact that few of the people replying to the survey would have these concerns in their jurisdiction.

On average, library and information services achieved a 'market share' of 35% i.e. just over a third of the potential number of service users taking up the opportunity to use it.

In more than 60% of cases, respondents said the number of library users had increased over the last three years, by 32% on average.

The majority of interaction was now by email (58%), with face-to-face interaction showing a 75% decrease over the last three years and telephone interaction a decrease of 50%. This marked a major shift in the way library and information professionals delivered services. There were concerns that this made the service less visible to users and potential users.

OUTCOMES OF HEALTH LIBRARY AND INFORMATION SERVICES

Library and information service users were asked how they believed their use of the service over the last year had helped them.

1. SKILLS DEVELOPMENT

95% said it had helped them progress their studies

76% said it had helped them achieve higher marks in their exams

2. SERVICE IMPROVEMENT

83% said it had helped them improve health outcomes for their patients

76% said it had changed their thinking and improved their diagnosis or treatment plan

3. INNOVATION

95% said it helped them discover new and valuable information

86% said it helped keep them abreast of the latest clinical developments

82% said it helped them progress their research

4. DUE DILIGENCE

65% said it had helped them confirm their diagnosis or treatment plan

I want to express my gratitude to your staff and my opinion that they play an essential role in the hospital and specifically the work of the Centre for Palliative Care.

Your staff have proved invaluable to me, by teaching me to use Medline and EndNote from scratch and of course performing literature searches for me and sourcing some more obscure articles. They are always prompt, saving me literally hours of time, and enabling me to do what I otherwise couldn't without their time, resources and expertise.

As a clinician researcher who is primarily trained as a medical doctor, I need to collaborate with library staff to be effective. I think any reduction in health library services would result in poorer quality clinical research and ultimately clinical care.

RESEARCH FELLOW



THE IMPORTANCE OF EMPLOYING INFORMATION PROFESSIONALS

Health libraries are changing. Electronic resources are expanding rapidly, while physical collections are shrinking; physical space is less important as more services are delivered online. The one thing that remains constant is the importance of employing library and information professionals.

This was demonstrated by the satisfaction levels expressed by service users in *Questions of Life and Death*, an investigation into the value of health library and information services.

SATISFACTION LEVELS OF SERVICE USERS

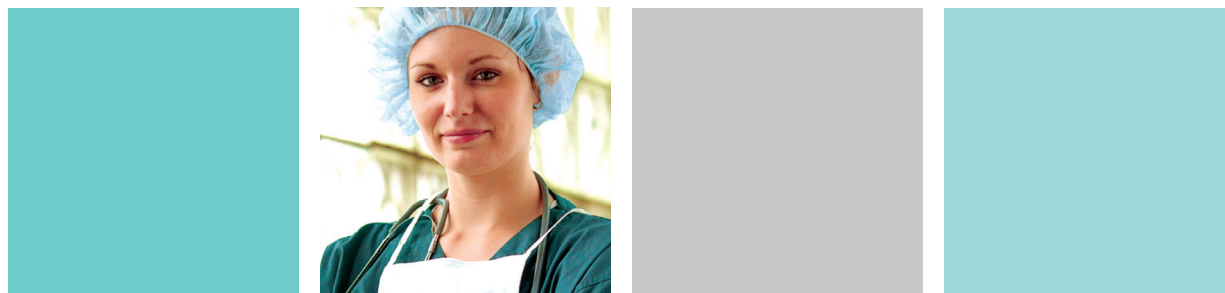
Health library and information services were highly rated by users:

- 99% satisfaction level for library staff
- 98% satisfaction with the literature review service
- 97% satisfaction with the document delivery service
- 97% satisfaction with the library space
- 97% satisfaction with the range of print journals
- 91% satisfaction with the range of electronic resources
- 85% satisfaction with the library website

Aggregated satisfaction levels in terms of the four roles of library and information services were:

- 99% for expertise
- 94% for facilities
- 93% for information content
- 93% for information services

The expertise of the staff is essential to the return on investment of Australian health libraries.



RECOGNISING SPECIAL SKILLS

ALIA has recognised the special skills needed by health librarians and library technicians. In July 2013, the Association introduced the new title of Certified Professional (Health), to recognise fully qualified members who commit to ongoing learning in their chosen field, as part of the ALIA MyPD Scheme.

Although it is a voluntary rather than a compulsory form of registration, this commitment to professional development enables library and information professionals to stand shoulder to shoulder with health practitioner colleagues.

Indeed, the concept of 'embedded librarianship' is exemplified by many library and information professionals working in health. Embedded librarians are those who are not confined by the walls of the library, but build a strong working relationship with clients by taking their skills to the places where they are needed. Embedded librarians develop a deep understanding of the clients' goals and become integral to the delivery of important outcomes. This concept has, for example, led to librarians being named as key members of research teams.

These are just some of the specialist skills health library and information professionals bring to their roles:

- Specific experience managing medical and health journals, books and ebooks
- Knowing what to look for and where, for literature and database searches and advanced searches
- Specialist knowledge supporting cataloguing, abstracting and thesaurus constructing
- Clear understanding of the applications used in emerging areas of biomedicine, computational biology and health information, including ehealth care systems and records
- Embedded awareness of the ethical and legal issues in health services.

Your service has been such a support in the research, grant applications and publications that I have been involved with over the years, from literature searches to systematic reviews.

We have acknowledged the library staff member in our last palliative care publication but I think it is worth considering the potential for staff to be involved as authors and a more recognized role.

RESEARCH CLINICIAN



ABOUT HEALTH LIBRARIES IN AUSTRALIA

Most of the biggest health libraries in Australia exist within major hospitals.

In 2011–2012, there were 1,345 hospitals in Australia — 753 public, the rest private. Of these, 80 were principal referral hospitals, located mainly in major cities, providing a wide range of service, including an emergency department; 11 were specialist womens' and children's hospitals; 40 were defined as large and 83 as medium size hospitals. These accounted for 204 locations. The remainder were small, multi-purpose (for example, residential aged care and other services) or specialist hospitals.⁴

In addition, there are health libraries for professional bodies, government health departments and specialist medical services. There are no definitive statistics available on these libraries, but in total, a conservative estimate suggests there are some 300 health libraries across Australia, with many providing a central service catering for colleagues who work at other locations.

I have found library staff and resources invaluable in helping me to provide evidence based practice and to help me research into ways to extend academic study into the area of chronic pain.

Library resources such as Psycinfo and access to articles online are particularly valuable. In addition library staff have always been very prompt and helpful in aiding me to access articles not available online. Add to this the mental health update and overall this is the best medical library I have been involved with throughout my practice.

CLINICAL PSYCHOLOGIST



⁴ <http://www.aihw.gov.au/australias-hospitals-at-a-glance-2011-12/>

CHALLENGES FACING HEALTH LIBRARIES

The *Community returns generated by Australian industry libraries* report found that budgets for health libraries ranged from just \$37,000 up to \$1.5 million, with an average of \$335,000. This suggests an overall expenditure on health libraries of just over \$100 million per annum.

HEALTH LIBRARIES ACCOUNT FOR JUST 0.1% OF RECURRENT EXPENDITURE IN AUSTRALIAN HOSPITALS.

Assuming hospital libraries are approximately two thirds of all health libraries, their expenditure represents just 0.1% of total recurrent expenditure in public and private hospitals (almost \$50 billion per annum).

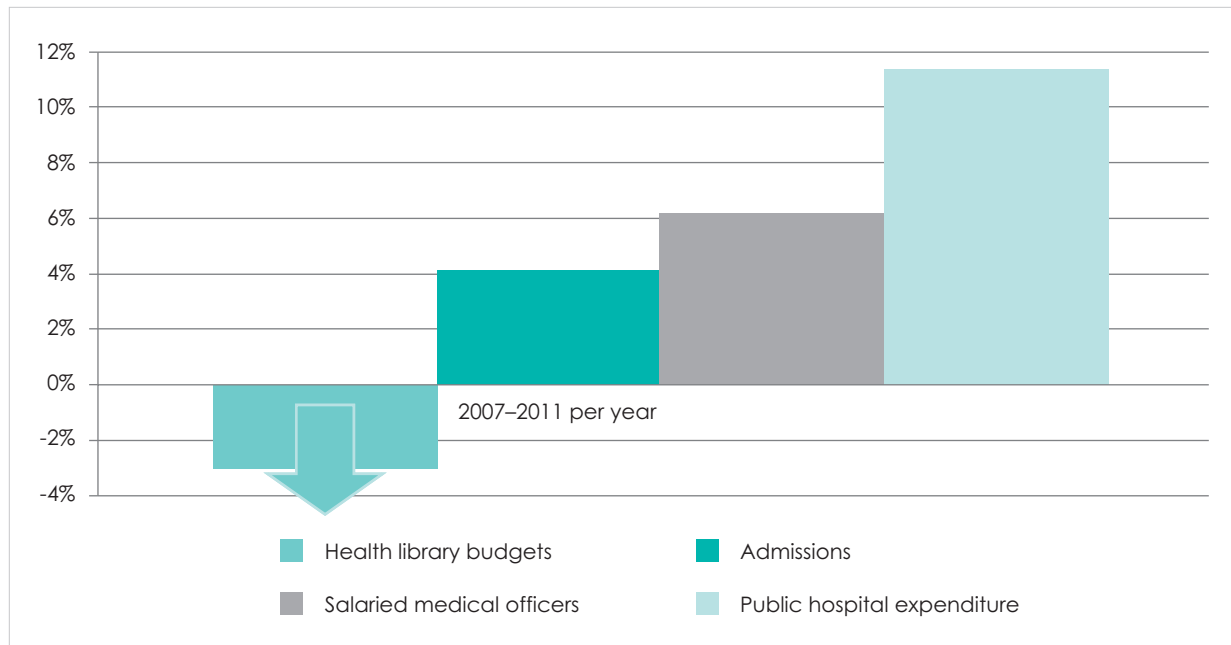
Healthcare touches almost every Australian — if people haven't been patients themselves, they know someone who has had to have treatment in the last year. In 2011–2012, there were 9.3 million admissions for patient care in hospitals and 27.7 million additional patient days. Admissions have increased at an average of 4.1% per annum over the last four years.

More patient care has meant more staff, and the number of salaried medical officers has increased by an average of 6.2% per annum over the last four years. It has also cost more, with recurrent expenditure in public hospitals increasing by an average of 11.4% per annum (after adjusting for inflation).

By contrast, over the same period, the figures from *Questions of Life and Death, an investigation into the value of health library and information services, 2012*, clearly show the falling investment in health libraries [Fig 1].

Nearly a third of respondents (32%) had a budget of less than \$20,000 per annum for print and e-resources. In 38% of cases, the budget had decreased over the previous three years. Only 6% of respondents anticipated an increase in the budget for the next 12 months, while 35% expected a decrease. This was despite the fact that 90% of library users had used books, and 86% had accessed e-resources over the last year. In addition, medical journal prices have increased exponentially over the last five years.

FIG 1 ACTIVITY GROWTH IN AUSTRALIAN HOSPITALS



Library staffing levels had also dropped over the previous three years in more than a third of cases (35%). The average decrease was reported to be 42 hours, or more than one full time equivalent position. Over the next 12 months, 15% of respondents expected a further fall in staff hours, with only 3% believing staffing levels would increase.

PATIENT AND MEDICAL STAFF NUMBERS AND HOSPITAL EXPENDITURE ARE INCREASING, WHILE HEALTH LIBRARY BUDGETS, SPACE AND STAFFING LEVELS ARE DECREASING.

Library spaces had shrunk over the previous three years for 30% of respondents. For some, this would have been less of an issue, as e-resources had taken over from print collections in some places. However, a number of respondents commented on the continuing need for print books and journals.

Nearly three-quarters of library and information professionals (74%) felt that future investment in their website was critical, followed by 67% e-resources and 64% more staff hours. This echoed the views of library users, in that library websites and e-resources showed the lowest levels of satisfaction. There were also many user comments supporting more staff and longer opening hours.

WHERE FURTHER INVESTMENT WOULD MAKE A DIFFERENCE

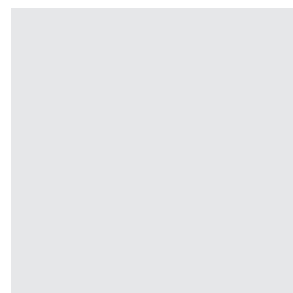
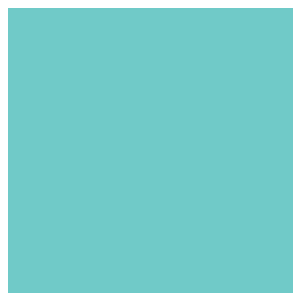
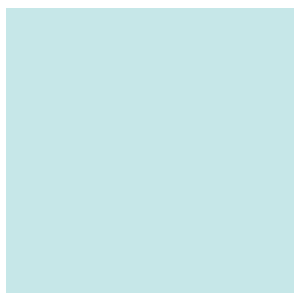
In *Questions of Life and Death*, an investigation into the value of health library and information services, library users felt improvements could be made in the areas of technology, e-resources, print collection, more staff hours, alternative ways of accessing library services and the physical space.

At the same time, library and information professionals were concerned about a number of issues:

- Reduction in staff hours having a detrimental effect on the delivery of services
- Lack of budget for essential print and e-resources
- Visibility of the service in the digital environment
- Continuing need for print collections
- Uncertainty about the future
- Lack of understanding about the value of the service at senior level.

With an indicative return of \$9 for every dollar invested, it makes sense for organisations in the healthcare sector to look again at their library and information expenditure.

The investment in these services is small in the scheme of things (just 0.1% of recurrent expenditure in Australian hospitals) and a modest move upwards would unleash the potential for significant incremental benefits.





Health Libraries Inc is a dynamic group of information professionals committed to health information provision, resource sharing, professional development, consortia implementation and relevance to the community that we serve. Based in Victoria, Health Libraries Inc promotes excellence in health libraries across Australia.

<http://www.hlinc.org.au>



ALIA Health Libraries Australia is ALIA's national group for members working in the health sector. It promotes, informs, unites, influences and innovates libraries and information professionals in the health and biomedical sector through professional development, research, networking and collaboration, advocacy and promotion.

<http://www.alia.org.au/groups/HLA>



Australian Library and
Information Association

The Australian Library and Information Association (ALIA) is the national association for library and information professionals. Our 5,500 members include libraries and individuals with library and information science qualifications. We also welcome people from other disciplines who work in the library and information sector.

<http://www.alia.org.au>



SGS Economics exists to shape policy and investment decisions to achieve sustainable places and economies. Its vision is to be a college of professionals providing Australia's best independent policy advice.

<http://www.sgsep.com.au>

APPENDIX 1: LITERATURE REVIEW

THE VALUE OF HEALTH LIBRARIES AND LIBRARIANS: A REVIEW OF A REPRESENTATIVE SAMPLE OF PROFESSIONAL LITERATURE

1. Ali I. Library provided information and clinical decision making: a study of two hospitals in Canberra. *AARL*. 2000; 31(1): 30–45.

Ali's study measured the value and impact of information provided by two hospital libraries on clinical decisions and thus the management of patient care. The paper outlines several earlier studies that also considered the impact of information on clinical decision making. The data from the Canberra study indicates that the case related information provided by librarians was of high cognitive, clinical and quality value and had an impact on many aspects of patient management. The paper concludes that the methodology used in this study could be applied to ascertain the impact of information provided by any library service, not just a specialised medical library.

2. Abels EG, Cogdill KW, Zach L. Identifying and communicating the contributions of library and information services in hospitals and academic health sciences centers. *J Med Libr Assoc*. 2004 Jan; 92(1): 46–55. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC314102/>

This article outlines a systematic approach to identifying and measuring the value of library and information services from the perspective of their contribution to achieving organisational goals. Abels presents a taxonomy of library and information service contributions to organisational missions and goals. The LIS contributions are evaluated according to how significantly they contribute to: clinical care; management of operations; education; research and innovation; and service. The paper describes the survey used to validate the taxonomy of LIS contributions in hospitals.

3. Sladek RM, Pinnock C, Phillips PA. The informationist: a prospective uncontrolled study. *Int J Qual Health Care*. 2004; 16(6): 509–515. <http://intqhc.oxfordjournals.org/content/16/6/509.full.pdf+html>

This study considered the value of an 'informationist' as a member of the clinical team in a hospital setting with responsibility for searching, filtering and providing the best evidence for clinical decisions. The paper documents the results of a pilot study where an informationist attended in-patient ward rounds and clinical meetings with doctors and provided summaries of the best research evidence in response to questions from doctors. The study concluded that doctors in an Australian acute tertiary hospital would use the service and that the responses contributed to a revision of treatment plans, confirmation of proposed therapy, avoided adverse events and additional tests and procedures and improved clinical outcomes.

4. Cuddy TM. Value of hospital libraries: the Fuld Campus study. *J Med Libr Assoc.* 2005 Oct; 93(4): 446–449. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1250320/>

The article discusses a study undertaken to demonstrate the value of the Fuld Campus library. Cuddy applied Abels' 2004 classification that identifies and groups LIS contributions to organisational goals and mission. The study shows that the medical library services improve patient care and positively contribute to achievement of the overall missions and goals of the parent organisation.

5. Perley CM, Gentry CA, Fleming AS, Sen KM. Conducting a user-centered information needs assessment: the Via Christi Libraries' experience. *J Med Libr Assoc.* 2007 Apr; 95(2): 173–181. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1852625/>

This paper describes the process of planning, implementing and analysing a formal needs assessment process to inform the Via Christi Regional Medical Center Library planning initiative. Findings from the study were used to develop a strategic plan.

6. Weightman A, Urquhart C, Spink S, Thomas R. Developing a toolkit for assessing the impact of health library services on patient care: report to LKDN (Libraries and Knowledge Development Network). Wales: Department of Information Studies, Aberystwyth University; 2007. http://cadair.aber.ac.uk/dspace/bitstream/handle/2160/355/NKS_ImpactStudyReport_Nov07.pdf?sequence=4

This paper reports on a project to develop a toolkit for health service libraries to enable assessment of the impact of library services on outcomes related to patient care. The aim of the project was to develop a standard and sound research methodology that could be applied in a range of library settings. The project methodology is detailed, and the standard questionnaire and interview schedule are included.

7. Bandy M, Donaldson Doyle J, Fladger A, Stemmer Frumento K, Girouard L., Hayes S, Rourke D. Standards for hospital libraries 2007. *J Med Libr Assoc.* 2008 Apr; 96(2): 162–169. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2268237/>

The Medical Library Association (MLA) Standards for hospital libraries were first developed in 2002 as a guide to ensure hospitals have the resources and services necessary to effectively meet their knowledge-based information (KBI) needs. The standards as amended to 2007 are detailed, and include a new minimum level of technology resources component.

8. Weightman A, Urquhart C, Spink S, Thomas R. The value and impact of information provided through library services for patient care: developing guidance for best practice. *Health Info and Libr J.* 2008; 26: 63–71.

The article describes the process, undertaken under the auspices of the National Library for Health Library Services Development Group, to develop a model survey to estimate

the impact or value of library services. Findings as a result of conducting an impact study can provide evidence to justify retention, extension or restructure of library and information services.

9. Tooley MJ. A pathway for hospital librarians: why is it vital? *J Med Libr Assoc.* 2009 Oct; 97(4): 268–272. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2759155/>

Tooley's paper provides an overview of the Medical Library Association (MLA) Vital Pathways Project and its accomplishments, outcomes and recommendations. The project was established in response to the closure of many hospital libraries with the aim of developing strategies to support the affected librarians. As part of the project, three Task Forces were established: Task Force on the Status of Hospital Librarians, the Task Force on the Health Sciences Librarian in Medical Education and the Task Force on Vital Pathways for Hospital Librarians. Tooley concludes that hospital librarians who thrive will be defined by their value and indispensability to their individual organisation and details what is required to achieve this.

10. Holst R, Funk CJ, Adams HS, Bandy M, Boss CM, Hill B, Joseph CB, Lett RK. Vital pathways for hospital librarians: present and future roles. *J Med Libr Assoc.* 2009 Oct; 97(4): 285–92. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2759170/>

Building on a 2002 study, this Medical Library Association Task Force on the Status of Hospital Librarians white paper considers current and potential contributions of library and information services that assist in achieving the vision and goals of the hospitals in which they operate. It identifies five aspects of hospital operations to which librarians add value: clinical care; management of operations; education; innovation and research; and customer service. Using examples from hospital libraries and a review of relevant literature, the paper concludes that hospital librarians and their services provide an excellent return on investment.

11. Turner J. Demonstrating library value: the use made of information provided by an NHS library service, and how that relates to organisational goals. Masters' dissertation. Wales: Aberystwyth University; 2009. <http://cadair.aber.ac.uk/dspace/handle/2160/5637?show=full>

This research was undertaken in a NHS hospital to determine the real value of the library service in terms of the difference it made to the organisation. The objective of the dissertation was to find evidence that the library service contributed to organisational goals and thus represented value to hospital management. The hypothesis that information obtained through the library service is used in ways that directly relate to organisational objectives was proved. The study methodology included a literature review along with interviews and questionnaires.

12. Klein-Fedyshin M. It was the worst of times, it was the best of times: positive trends influencing hospital libraries'. *J Med Libr Assoc.* 2010 Jul; 98(3): 196–199. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2901006/>

This editorial highlights the need for, and the value and impact of evidence-based information in patient care. At the same time, it notes that the number of libraries and librarians in hospitals has reduced significantly. Klein-Fedyshin identifies several developments that provide new opportunities for health science librarians.

13. Garrity WF. Libraries and electronic health records: focus on "evidence" as part of treatment and care, not on "the library". *J Med Libr Assoc.* 2010 Jul; 98(3): 210–211. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2901001/>

Drawing on his experience with the implementation and administration of an electronic health record (EHR) system, Garrity observes that librarians may misunderstand how clinicians use library resources and services in the context of an EHR. He notes that they do not have time to conduct a complex literature review, but rather require just the information necessary to provide the best care for each patient. Librarians need to consider how evidence can be integrated into the EHR so that it is part of the treatment and care process rather than how the library should be integrated into the EHR. They should also look at how to best utilise their expertise in an EHR implementation.

14. Bodleian Health Care Libraries. Bodleian Health Care Libraries 2010 user survey. Oxford, England: University of Oxford; 2010. http://test3.bodleian.ox.ac.uk/__data/assets/pdf_file/0008/84896/BHCL-2010-User-Survey.pdf

This paper reports on a survey of Bodleian Health Care Library members that focused on an evaluation of the physical library space, collection utility and comprehensiveness. The survey questions and results along with the action that will be taken as a result of survey responses are noted.

15. Hallam G, Ritchie A, Hamill C, Lewis S, O'Connor P, Kammermann M, Clark C, Newton-Smith C. Health librarianship workforce education: research to plan the future; final report. Canberra, Australia: ALIA and Health Libraries Australia; 2011. <http://www.alia.org.au/sites/default/files/documents/our-communities/Healthlibrarianshipworkforcereport.pdf>

This Australian report focuses on the educational requirements of LIS professionals in health libraries. As part of the research, surveys of library staff, library administrators and employers were conducted to determine the organisations mission critical goals and how well the library contributed to achieving them. The survey and interview questions are included and a summary of the results are included in the report.

16. McGowan J. Evolution, revolution, or obsolescence: an examination of writings on the future of health sciences libraries. *J Med Libr Assoc.* 2012 Jan; 100(1): 5–9. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3257485/>

McGowan examines professional literature published since 2000 that discusses the future role of health science librarians. Reference is made to peer reviewed literature as well as more recent web based discussion of innovative roles and competencies for health science librarians. The opinion piece concludes that health science librarians must change to ensure their continued viability.

17. Health Libraries Inc. Questions of life and death: an investigation into the value of health library and information services in Australia. ALIA and Health Libraries Inc.; 2012. <http://www.hlinc.org.au/images/stories/PDFs/hli-aliavaluinghealthinformationservicesreport2012final.pdf>

Health Libraries Inc. and the Australian Library and Information Association collaborated to review the value of Australian health library services. Library users and library staff were surveyed and both the survey template and results are presented in the report. The survey results show that resources, staff hours and space have remained static or declined in a majority of health libraries while the number of users has increased substantially and there has been a significant shift to electronic resources. They also confirm the contribution that library and information services make to the health service organisations and the value of employing professional library and information professionals.

18. Marshall G M, Sollenberger J, Easterby-Gannett S, Kasner Morgan L, Klem M L, Kavanaugh S K, Oliver K B, Thompson C A, Romanosky N, Hunter S. The value of library and information services in patient care: results of a multisite study. *J Med Libr Assoc.* 2013 Jan; 101(1): 38–46. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543128/>

This report considers the results of large-scale multisite study on the value and impact of library and information services on patient care. The study incorporated 56 library sites serving 118 hospitals and included focus groups of librarians, a web-based study of physicians, residents and nurses and follow up telephone interviews. Over 16,000 survey responses were received that, along with the interviews, overwhelmingly demonstrated the value of the library and information resources. Information obtained was perceived as having a positive impact on patient care with better informed decisions. The study was modelled on the earlier Rochester study and the differences between the two are highlighted.

19. Sollenberger J F, Holloway Jr R G. The evolving role and value of libraries and librarians in health care. *JAMA.* 2013 Sept; 310(12): 1231–1232. <http://jama.jamanetwork.com/article.aspx?articleID=1741829>

Sollenberger and Holloway consider the shifting roles of health libraries and librarians to ensure they add value to patient care. Evidence is drawn from a number of recent studies that show the value of information in patient care.

