The Census of Australian Health Libraries and Health Librarians Working Outside the Traditional Library Setting: The FINAL REPORT OF THE 2012 ANNE HARRISON AWARD PROJECT

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EXECUTIVE SUMMARY

In 2012 successful application was made to the Anne Harrison Award to undertake a census of Australian health library and information services (LIS) and self-described health librarians working outside the traditional library setting.

The primary aims of this project were to:

- 1. conduct the census;
- 2. report publicly on the data collected;
- 3. make the census replicable for the future, and;
- 4. develop and make available a Web based data collection and reporting system for both current and future use.

A secondary outcome was the development of an online directory of Australian health library and information services.

The Census project team consisted of four members: Melanie Kammermann, librarian and principal researcher for the project; Professor Gillian Hallam, Adjunct Professor of Library and Information Studies at the Queensland University of Technology, Lindsay Harris, librarian and project leader for the 2002 Census of Australian Health Libraries, and; Scott Hamilton, database developer and technical consultant for the project.

Two separate census instruments were developed: one for health library and information services and one for health librarians working in settings other than libraries.

A secure, industry standard database with application front end was commissioned as part of the project to allow for online data entry, capture and storage. Data collection was undertaken from October 2014 to February 2015 with a calculated response rate of 81 percent.

Results of the Census of Australian Health Library and Information Services

During the data collection phase Australian health LIS presented in an array of operational and governance structures. Depending on the jurisdiction of the census respondent, one response to the Census could represent the data of one or more libraries or service points. As such it was resolved to use National Union Catalogue symbols (or some other unique identifier in cases where a service did not hold a NUC symbol) as the unit with which to measure the number of Australian health LIS.

Two hundred and nineteen (219) census responses were recorded. These equated to 267 unique NUC symbols. An additional 61 services that did not take part in the Census were further identified. This brought the total number of active Australian health LIS to 328.

This equated to an overall reduction in the number of health LIS of approximately 2 percent between 2002, when the last census of Australian health LIS was conducted, and 2014. This small reduction would indicate that Australian health LIS, by and large, have weathered the economic storms of the past two decades. Any significant losses have been offset by new libraries or identification of previously unlisted libraries.

Workforce data was provided by 63 percent of all identified health LIS. Extrapolating this to 100 percent suggested a health LIS workforce that was approximately 1,250 strong made up of around 760 health librarians, 290 library technicians and 200 non–LIS qualified staff employed in the sector as at 01 October 2014. Health LIS vacancy rates were around 10%, significantly higher than Australia's national job vacancy rate of 1.2%. In addition, the sector may experience a net loss of LIS qualified staff as the number of potential retirees outnumbers the number of new graduates entering the sector.

The health LIS workforce was largely female, the largest concentration of health LIS (76 percent) were located on the eastern seaboard of Australia, more than 70 percent were located in a capital city, and around 60 percent operated in the government sector. Examination of various services indicated that, overall, health LIS continued to provide relatively traditional library services.

Results of the Census of Self-Defined Health Librarians working outside the traditional library setting

Anecdotal evidence of growth in the number of librarians working outside the traditional library was the impetus for surveying this cohort. In total, 15 responses were recorded, of which 14 worked in a health information service role, and, of those 14, half worked in a research related environment.

Given the small number of responses, and the impossibility of determining a response rate, it makes it difficult to present conclusive statements about this cohort. Therefore, this investigation should be treated as an exploratory study. As future censuses are undertaken tracking changes in the size and makeup of this cohort will be of considerable interest.

Recommendations

The report concludes with 5 recommendations:

- 1. That the sector carry out a census of the Australian health LIS sector every 3–5 years. While this census project came under the auspices of the Anne Harrison Award it is assumed future censuses will be managed and sponsored by ALIA HLA.
- 2. To address the high number of vacant positions within the sector and the anticipated net loss of health LIS professionals as a result of retirement, ALIA HLA should continue to progress its campaign of improved education and training for health LIS professionals. This, potentially, will attract more professionals to the sector as well as ensure sufficient numbers of professionals are adequately trained as they move into and around the sector. In addition, the sector must continue to market the value of health LIS to library decision makers in an effort to minimise job redundancies.
- 3. All the stated aims of this project have been met with the exception of the development of a Web based reporting system and fully functioning online directory of Australian health LIS. It is recommended that ALIA HLA review how both of these functions can be further progressed. Furthermore, given the directory data compiled during the Census is relatively up to date, priority should be given by HLA to constructing an online directory of Australian health LIS. An excellent model is the UK's Health Library and Information Services Directory (http://www.hlisd.org/index.aspx).
- 4. That the results of the Census be disseminated widely through appropriate national and international publications and that the results of the study be freely accessible from the ALIA HLA web site.
- 5. That HLA consider utilising the Census data to commission an update of the 2013 SGS Economics report *The Community Returns Generated By Australian Health Libraries*.' An updated study such as this, reinforced by the Census data would be a powerful promotional tool for health libraries at national and local levels.

The Australian health LIS sector is to be congratulated for its high level of participation in this most important research.

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ACRONYMS

AAHSL Academic Health Sciences Libraries

AAMC American Association of Medical Colleges

ABS Australian Bureau of Statistics

AHA Anne Harrison Award

AHPRA Australian Health Professional Regulation Authority

ALED Australian Libraries: The Essential Directory

ALG Australian Libraries Gateway

ALIA Australian Library and Information Association

CPD Continuing Professional Development

DASL Directory of Australian Special Libraries

DoH Department of Health

FTE Full-Time Equivalent

HLA Health Libraries Australia

HLI Health Libraries Inc.

HWA Health Workforce Australia

LIS Library and information service(s)

MLA Medical Library Association

NLA National Library of Australia

NN/LM National Network of Libraries of Medicine

NUC National Union Catalogue

1. INTRODUCTION

The professional body governing health libraries and health library professionals within Australia is Health Libraries Australia (HLA), a group of the Australian Library and Information Association (ALIA). There has been a long held understanding within HLA of the need for demographic data that accurately and adequately describes the Australian health library sector. Until now there have been limited or outdated statistical sources from which to draw such data.

As far back as 2008 (p.103), Ritchie noted that health librarians needed to increase their credibility and status in the context of the Australian health workforce and ramp up the profession's competitiveness in the health information professional market. To this end, the *Health Librarianship Workforce and Education: Research to Plan the Future* (Hallam et al 2011) (also known as the neXus3 study) set out a plan for education and continuing professional development (CPD) while further research in the form of *Questions of life and death* (Health Libraries Inc, 2012), and the follow up study, *Worth every cent and more: an independent assessment of the return on investment of health libraries in Australia* (Health Libraries Inc, 2013), demonstrated the return on investment of health libraries. Still missing from this mix, however, has been a source of basic demographic data as further demonstration of a highly organised, self-motivated professional body capable of defining both its workforce and places of employment.

In 2012 the opportunity to fill this gap arose by way of a project funded by the Anne Harrison Award¹ (AHA). *The Census of Australian Health Libraries and Health Librarians Working Outside the Traditional Library Setting* was born.

The stated primary aims of this project have been to:

- 1. conduct a census of Australian health libraries and self-described health librarians working in settings other than libraries;
- 2. report publicly on the data collected;
- 3. make the census replicable for the future; and
- 4. develop and make available a Web based data collection and reporting system for both current and future use.

A secondary outcome of the project was to develop of an online directory of Australian health library and information services.

¹ Anne Harrison Award: http://www.alia.org.au/about-alia/awards-and-grants/352/anne-harrison-award

By definition a census is the count of a defined population. It is usually carried out in a periodic fashion and involves the systematic acquisition and recording of demographic information about the members of a given population. A census varies from a survey in that data is collected about *every* member of the population. This information is then typically used to support the planning, administration and policy development of governing bodies, businesses and other groups.

Within Australia the best recognised example of a census is almost certainly the Census of Population and Housing. Carried out by the Australian Bureau of Statistics (ABS) every 5 years, Australian government legislation mandates that every household in the country complete a census form. Data collected provides reliable estimates of the population of each of the states, territories and local government areas which in turn is used, primarily, for electoral purposes and for planning the distribution of government funds (ABS, 2015).

Just as the national Census of Population and Housing allows government and public and private sector entities to make informed decisions on policy and planning issues across Australia for Australians, it is assumed that data collected about the Australian health library and information services (LIS) sector will be able to help inform planning, policy development, professional development and decision–making to further promote and develop the health LIS sector. Moreover, such data can assist both ALIA and the HLA Executive to better target services to members, build a more informed sense of identity within and outside the sector, accurately inform and potentially increase the sector's credibility and status among government policy makers, and identify possible areas of research as well as assist researchers to frame results more precisely. Census data sets, if collected uniformly at discrete intervals in the future, could be compared to reveal changes in the demographics of the Australian health LIS population as affected by factors such as:

- ageing workforce considerations;
- changes in government, sector policy and industrial relations;
- changes in health information services and delivery; and
- workforce skills development.

Changes in demographics might present as:

- changes in health library numbers.
- changes in the size of the health library workforce; and
- movement in and out of the traditional library workforce.

This report discusses the findings of the Census data, the context for the need of such data, outlines the research methodologies used, reviews some of the limitations of the project and draws attention to the changes that appear to have occurred within the sector over the last decade.

2. BACKGROUND TO THE PROJECT

Health Libraries Australia (HLA) has provided significant support to *The Census of Australian Health Libraries and Health Librarians Working Outside the Traditional Library Setting* in order to gain comprehensive insights into the nature, scale and composition of Australian LIS and its workforce. This overview examines what was known about the demographics of the Australian health library sector prior to carrying out the project.

A search was conducted of the major specialist health databases, namely Medline and CINAHL, together with Library and Information Science Abstracts (LISA) and ProQuest Library Science for the period January 2000 to December 2015. The author also drew on her knowledge of relevant grey literature and personal knowledge of the Australian health and health LIS sectors.

2.1 Australian Health Workforce Planning

The need for national statistical data had long been recognised by the peak body representing the Australian health LIS sector, namely HLA. As Ritchie (2015a) noted, it is increasingly difficult to argue on behalf of the sector when there is so little accurate workforce data to inform planning and advocacy at the national level.

The direction of HLA in recent years has been to work with national trends in workforce planning and begin to align health librarians, as much as possible, with other health professions with regards to (Ritchie 2015b):

- professional specialisation through the introduction of further specialised qualifications in health librarianship²;
- developing scopes of practice for the profession³; and
- determining a system of self-regulation, in the absence of a nationally legislated registration system, through the implementation of a structured and regulated CPD system⁴.

Ritchie (2015a) argues that health library professionals are in "the business of health care (not libraries)" whose ultimate goal is to contribute to the business of health care within their own scopes of practice. She further argues that:

² http://www.alia.org.au/sites/default/files/HLA%20News-Summer2015.pdf (p.8)

³ http://www.alia.org.au/sites/default/files/HLA%20Competencies.pdf

⁴ http://www.alia.org.au/news/1438/certified-professional-health-specialisation

"Without nationally recognised qualifications, registration, certification and ongoing CPD, health librarians risked being marginalised to the clerical or administration streams, invisibility in the health professional workforce, obsolescence." (p. 4)

While the need for such a direction has been recognised for more than a decade by the HLA executive committee, it has been further fuelled by two factors.

The first was the implementation of the Health Practitioner Regulation National Law. Coming into effect on 1 July 2010, and applying to all states and territories, 14 health professions are currently regulated by nationally consistent legislation under the National Registration and Accreditation Scheme. This scheme provides an education and regulatory framework comprising of (1) initial qualifications, (2) national registration with a professional body, (3) ongoing CPD, and (4) certification and revalidation. The scheme is supported by the Australian Health Professional Regulation Authority (AHPRA) which works with the national professional boards of the 14 registered health professions (AHPRA 2014).

This scheme excludes many health professions, including health library professionals. However, there is opportunity for recognition as a 'self-regulating' profession. For health library professionals this is possible through participation in ALIA's competency-based professional development scheme which, upon satisfactory completion, leads to revalidation and a 3-year certification as a health librarian or health library technician. Being such a small professional body it will take the collective might of members to signal the seriousness with which the profession regards its skills, knowledge and competencies among other health professionals. Without clear workforce data, adoption of the scheme is difficult to gauge.

The second driver was the work of, now defunct, Health Workforce Australia (HWA) and the opportunity for the profession of health librarianship to be recognised by this Commonwealth statutory authority. HWA commenced work in 2010 with the brief to implement national and large scale reform, working in collaboration with health and higher education sectors to address the critical priorities of planning, training and reforming of Australia's health workforce.

Before its closure in 2014, links had been established between HWA and HLA with the aim of HWA using data provided by HLA to assist government in planning the broader health information professional workforce. Building on this point, one example of work undertaken by HWA was a study of the health information workforce (HWA 2013). The fact that this study did not encompass health library workers, as health information workers, exemplifies the need for health LIS professionals to build their profile. Moreover, this study exposes the breadth and scope of data and information workforce planners seek. Specifically, the report sought to define the health information workforce in terms of:

- functions, roles and job titles;
- skills and competencies; and
- education and training pathways.

In addition, it aimed to analyse the workforce in terms of:

- size according to gender, age, competencies, types of training undertaken, current deployment within the health system and geographic locations;
- demands and drivers of demand and their impact on the workforce as well as current supply sources of the workforce, including education and career pathways; and
- estimated shortfalls between current supply and demand.

As can be seen from this list, satisfying the purposes of such a study requires considerable data and, in fact, one of the recommendations of HWA's report was improved data collection processes for health information occupations (p 6).

HWA was closed in 2014 and its "essential functions" (HWA 2014) transferred to the Commonwealth Department of Health (DoH). As a consequence, HLA must now work to establish links with workforce planners within the DoH.

As things stand, exclusion from national health workforce planning and education puts health librarians at risk of going unrecognised as health professionals (Hallam et al 2011 p. 6) and "being marginalised to the clerical or administration streams." (Ritchie 2015b p. 4). Regardless of the political climate on any particular day, it is undoubtedly in the profession's interest to remain proactive and prepared for any future opportunities that allow it to contribute to the planning and development of Australia's health workforce. This will require ongoing and reliable data collection.

2.2 Sources of data about Australian health libraries

While some Australian health LIS may fall under state or federal legislative statistical reporting requirements, as a collective they do not. In *Health Librarianship Workforce and Education: Research to Plan the Future* Hallam et al (2011 p. 10) stated that the Australian LIS sector is diverse and that individuals "broadly defined as health librarians" can be found working in hospitals, universities, research institutes, pharmaceutical companies, government departments, regional health services, professional colleges, not–for–profit and community organisations, and parts of the public library services. Data sources or studies that seek to establish the demographics of Australian LIS are limited.

2.2.1. 2002 Census of Australian Health Libraries

The most recent and comprehensive study of Australian health libraries was conducted by Harris and Kiesau (Kiesau 2003) in 2002 who undertook a census of health related libraries with the stated aim of identifying "the range and number of health libraries in Australia so as to assist in the planning of future activities and promote the interests of health libraries in general."

Having originally identified some 399 libraries operating within health, allied health and related fields at the beginning of the project, Harris and Kiesau (Kiesau 2003) found this figure had declined to 334 by completion of the census in early 2003. When comparing this figure against entries in the 1999 edition of the Directory of Australian Special Libraries (DASL), the authors asserted that this signified a decline of 17 percent in health library numbers. This fall was attributed to the closure of small country hospital libraries, particularly in Queensland and Victoria, as well as several sight and hearing impaired libraries re–defining themselves as public rather than health libraries. What constituted a health library was not explicitly defined as part of the study but it may be reasonable to assume that library and information services took part in the census on the basis that they classified their services as such. The authors also attempted to gather staffing numbers as part of the census, however, responses recorded were an inconsistent mix of full–time equivalent and headcount.

The potential value of this important study was perhaps not fully realised at the time: data analysis was limited, and restrictions, beyond the researchers' control, were placed on ongoing access to the data. This in turn led to an undervaluation and underutilisation of the data. Despite its limitations, this study remains significant as it provides a benchmark of health library numbers and characteristics.

2.2.2. Directory of Australian Special Libraries (DASL)

Prior to the widespread use of the internet by libraries, DASL was used as a relatively reliable source for charting overall changes in the size of the special library sector, of which health was considered a sub–sector. O'Connor (2007) highlights the dramatic growth in the Australian special libraries sector during the twentieth century from 384 special libraries listed in the 1st edition in 1952 to 1,125 by the time the 10th and last edition of the Directory was published in 1999. The author goes on to report the difficulty in obtaining statistics on Australian special libraries in the 10 year period following the final edition of DASL, a sentiment mirrored by others (Library Provocateur, 2010).

2.2.3. Australian Libraries: The Essential Directory

Commercial listings, such as the *Australian Libraries: The Essential Directory (ALED)*, have the potential to fill the gap left by DASL. ALED provides short entries of Australian academic, public, joint use and special libraries (Bundy and Bundy 2010?, p.i) plus a listing of libraries according to a subject index. In 2012 there were approximately 1200 special libraries (Bundy, 2012). Of these, it is unknown how many were health libraries.

The comprehensiveness of ALED has been called into question (Library Provocateur, 2010) but, regardless, as a published work, such publications provide a snapshot in time that may otherwise be lost. It would certainly be possible to ascertain the number of health libraries by manually counting all relevant entries in ALED. Notably, a new edition of ALED has not been released since the 2009/10 9th edition making it more than 5 years out of date.

2.2.4 Australian Libraries Gateway

A regularly cited source of health library numbers is the Australian Libraries Gateway⁵ (ALG) (for example, see ALIA n.d., Hallam 2011, Lewis 2010, Henczl, Ralph and Sibthorpe 2009), a free Web-based directory service started in 1998 with the aim of being a "one-stop-shop" directory for current information about Australian libraries and cultural institutions..." (National Library of Australia 2013). In early 2010, 427 libraries self-classified as health/medical were listed in the ALG. As of September 2015 this number was 434. While developed and hosted by the National Library of Australia (NLA), responsibility for adding, classifying, updating and deleting entries in the directory falls to ALG members, that is, the libraries themselves. This raises questions regarding the accuracy of the ALG listing and how precisely this reflects the number of Australian libraries, health or otherwise, at any particular time.

2.2.5 GRATISNET

Another well established directory peculiar to Australian health libraries, and one that could well contribute to our understanding of health library numbers and types, is the GRATIS membership list. GRATIS⁶ is a co-operative and free inter-library lending network made up of Australasian libraries in health and related fields. GRATIS was created as a way for member libraries to access material held in hospitals and small medical collections not included in national lists and has grown from 14 founding members in 1982 to more than 371 libraries as of November 2012 (D. Coulter, personal communication, November 8, 2012). The success of GRATIS is dependent on the responsiveness of member libraries and, to this end, an active discussion list and State-based committees, that oversee member libraries in their domain,

⁵ https://www.nla.gov.au/libraries/index.html

⁶ http://www.gratisnet.org.au/

operate to maintain the integrity of the network. As such, the GRATIS membership is more responsive to library closures and mergers. While it would be erroneous to assume the GRATIS membership list is inclusive of all Australian health libraries – academic health libraries have traditionally not been members – the membership number in 2012 hovered between those established in the 2002 census of Australian health libraries (Kiesau 2003) and the number of self-reported health/medical libraries listed in the ALG.

2.2.6 Victorian Statistical Survey

Within Australia the only published statistical data that emanates from health libraries is that which is collected in Victoria. Originally coordinated by the ALIA Victorian Health Libraries Section, the survey is now run by the local independent Victorian association, Health Libraries Incorporated (HLI). The last reported survey was conducted in 2011 with input from just sixteen libraries. Due (2011), however, maintains that the "HLI Statistical Survey provides evidence on the resources, services and economics of our libraries." While it is a state–based survey and not representative of the wider Australian health LIS population, it does remain an important tool in that it is reflective of measures deemed important by at least one section of the Australian health library community as well as that community's response to the survey.

Thanks to Due's commentaries over the years, the history of the survey has been well documented and reveals some of the characteristics associated with survey administration: difficulties maintaining steady numbers of responses because of a lack of time, data or interest on the part of librarians; fears about inappropriate use of the data; the necessity to update data elements in line with changing practices or pressure in libraries; and what intelligent analysis of data can teach us about library operations in general (Due, 1998, 2003a, 2003b, 2004a, 2004b, 2005, 2011).

2.3 International studies

When looking overseas, Australian health library professionals tend to draw on the work of colleagues in the United States (US), Canada and the United Kingdom (UK) for comparison and best practice. There is no evidence that any censuses of health libraries have been carried out in the last 10 years in any of these jurisdictions. Instead library associations, representative of health LIS and health LIS workers, quote secondary sources of demographic data, estimate or have engaged in single studies. There are regular or semi–regular surveys that garner demographic data but these are from very specific membership groups that represent sub sets of health LIS. For example, in the US, there is the annual survey of the Association of Academic Health Sciences Libraries (AAHSL) (Shedlock and Byrd 2003) and, in the UK, a survey of National Health Service libraries has been undertaken periodically (Maynard 2002, LISU 2007).

2.4 Conclusion

Recent focus on workforce planning for the healthcare sector and acknowledgement of the need to increase librarians' credibility and status in the context of the Australian health workforce lend argument to the potential benefits of engaging in extensive and systematic data collection. While a seemingly reasonable estimate of health library numbers operating across Australia can be made from the sources of information explored thus far, these sources can be categorised as dated or incomplete or not readily accessible. Furthermore, none provide evidence as to the total size of the Australian health LIS workforce.

3. METHODOLOGY

The Research Concept

The research concept, namely, to conduct a census of the Australian health LIS, was not a new one. The importance of having ready access to workforce data was very much in the fore as a result of the reaction, in 2010, of Health Workforce Australia (HWA), an Australian Commonwealth statutory authority, charged with developing a coordinated approach to the creation of a health workforce that would meet the current and future healthcare needs of Australia. The HLA Executive Committee appreciated that, were HWA to recognise health librarians as valid members of the health workforce, the profession's stature would be positively enhanced.

Anne Harrison Award

During discussions among the HLA Executive, of which the leader of this project was a member between 2004 and 2012, the importance of conducting a Census was mooted and the Anne Harrison Award (AHA) put forward as the most obvious avenue with which to progress such a project. At the time the person who was to become the principal researcher for this project resolved to step down from the HLA Executive and pursue an application to the AHA. Invitations to apply for the Award went out in early 2012 and the Census project was announced as the winning project to the wider Australian health library community in May 2012. The Award came with AU\$5,000 funding.

Research subjects

The two principal cohorts of research subjects identified for this project were: (1) Australian health library and information services and (2) individual health librarians working outside the traditional library setting who would otherwise not be identified from the responses supplied by the first cohort. With regards to the second cohort, given the small, discernible movement of health librarians into information related roles outside of library services, it was deemed important to try and capture this subset so as to get a true picture of the health LIS workforce.

The research process started with a number of concurrent steps.

Drafting the Census Instruments

Members of the Project Research Team, as well as the HLA Executive Committee, were involved in drafting the census instruments.

Many of the demographic and workforce data questions included in the final Census instruments were taken from the neXus3 study (Hallam et al 2011) because they were appropriate, consistent and were thought to possibly offer a basis of comparison between the two studies (51 'useable' responses were collected from health LIS managers in the neXus3 survey). Questions were used either verbatim or in a modified form in the Census instruments.

During the drafting process consideration was also given to a range of other questions for possible inclusion in the census tools. The two major additions were: (1) for health LIS, a question about the nature of their organisational structure; and (2) for both cohorts, a series of questions regarding the types of services provided. While including this series of service questions expanded the length of the census considerably, the HLA Executive Committee considered that evidence of the types of services offered by health LIS was important enough to warrant inclusion. Secondly, as the long term view of the Census is that it be repeated periodically, it was anticipated that this set of questions might expose shifts or changes in service delivery over time. Services were identified and listed under six broad headings: information, education, access, materials, building and equipment and technology.

During the development of the survey instruments consideration was given to finding a balance between purpose and brevity. Did all the questions included have a valid reason for inclusion? Could the number and types of questions being asked mitigate against the stated aim of achieving 100% participation by the sector? As a result several additional questions were considered and eliminated. For example, questions about budgets were rejected on the basis of being too sensitive.

Identifying Australian Health LIS

Concurrent to developing the survey instruments a list of Australian health libraries and their contact information was drafted from existing public sources. The main source was the Australian Libraries Gateway health/medical listing as well as relevant entries from edition 9 of the Australian Libraries: The Essential Directory 2009/2010. Another obvious source was the GRATISNET membership list, a network of chiefly health LIS providing reciprocated inter–library loan services, however, restrictions on the distribution and use of the membership list meant it was not available for the purposes of the project.

The initial list of health LIS contained more than 500 entries. As the project progressed it became evident that the list contained entries for libraries that had closed down, been merged to create new services or that appeared more than once as a result of name changes. However

imperfect the list, pre-identifying as many health LIS as possible meant that once the Census went live, response rates could be measured with some semblance of confidence.

Development of Census Database

Project Team member Scott Hamilton was responsible for building the online database to be used to administer the Census. Scott was previously involved in the neXus1⁷, neXus2⁸ and neXus3⁹ projects. The online census tool was built using a secure, industry standard Oracle database with Oracle APEX application front end. It was developed to provide online data entry, capture and storage capabilities to a large audience. As well, the online tool was set up to enable the creation of an online directory of participating health LIS, which was a secondary aim of the project.

User access to the online Census database was controlled through username and password. Respondents were required to register with an email address after which they were provided with a system generated password that could be changed once logged into the system.

With further development, the Census tool could allow for stored data and reports to be easily exported to Excel, Word or PDF format, making the data flexibly available to participating respondents. Individual LIS could securely maintain their own records and sensitive data limited to appropriate audiences.

With ongoing hosting, the database will be available online for repeat censuses, thus allowing the data to be persistent, reusable and potentially expandable over time.

Pilot Study

The two web based questionnaires were piloted in June 2014. Those invited to take part in the pilot were representative of both cohorts.

Census Data Collection

The Census went live in October 2014. Invitations to participate in the Census were distributed to various associations and networks via their e-lists: ALIA HLA's e-list, aliaHEALTH; Health Libraries Inc., GRATISNET and GLASS. The Census was also advertised in ALIA Weekly and Australian Policy Online.

⁷ http://eprints.qut.edu.au/12908/

⁸ http://eprints.qut.edu.au/29051/

⁹ http://eprints.qut.edu.au/46137/

No hard and fast criteria were attached to what constituted a health library and information service for the purposes of this project. Libraries were invited to participate on the basis that they themselves categorised their service as a health library service and, in the vast majority of cases, libraries identified and approached to undertake the Census had already self-nominated under the health/medical category in the Australian Libraries Gateway.

The Census remained open until February 2015. This was a relatively long timeframe but was necessary to allow for extensive follow up of non-respondents. Initial follow up was by direct email and then by phone call.

Analysis

Qlikview¹⁰, a data analysis software tool, was used to analyse the data from both census datasets. The responses to open-ended questions were reviewed by the principal researcher for any common elements or themes of note but otherwise appear in full, minus identifiers, in the appendices of this report.

¹⁰ Qlikview: http://www.qlik.com/au/explore/products/qlikview

4. RESEARCH FINDINGS

The data collection activities involved two online surveys: one for health library and information service (LIS) representatives and one for self-described health librarians not working in a traditional health library and information service. The findings drawn from the analysis are presented.

4.1 Results of the Census of Health Library and Information Services

In order to put these results in perspective it is necessary to outline the context within which responses to the Census were received. The majority of health LIS across Australia have been allocated a NUC symbol by the Australian National Library¹¹, which allows for the unique identification of libraries. One approach the Census could have taken would have been to ask each library, with its own NUC, to contribute one Census return. This would then have facilitated the simple identification and tracking of the majority of Census responses. However, the reality is that health LIS exist in various configurations – as independent, standalone services, as branches of larger libraries, as groups of centrally managed physical libraries, etc. For library services made up of more than one LIS it is feasible that only the collective data for the whole service is available and not the data of each individual library. As such, it was at the discretion of participants to determine if they completed a separate Census for every library falling within their jurisdiction or if they completed one Census response representative of all the health LIS under their authority. In the case of the latter, respondents were asked to at least record the NUC symbols and/or names of all services associated with that census response.

Bearing this in mind, the Census drew 219 responses from 216 unique respondents. This difference of 3 was due to 3 Census respondents having 2 library services linked to their registration for which they submitted separate census responses (i.e. 1 respondent / 2 libraries = 2 census responses). There were also 21 respondents who provided the collated data of more than 1 library, each collective being a health library service or a network of centrally managed health libraries, and each of these counted as 1 response (i.e. 1 respondent / 2+ libraries = 1 census response). This is an important aspect to note in terms of trying to determine the total number of health LIS operating across Australia.

Following on from this, a secondary aim of the Census project was to develop a Directory of Australian Health Library and Information Services. Using the information submitted for the

¹¹ National Union Catalogue (NUC) symbols are unique identifiers for organisations which contribute information to the <u>Australian National Bibliographic Database (ANBD)</u> and/or to<u>Trove</u>. They are issued by the National Library of Australia. http://www.nla.gov.au/ilrs/about.html

Directory, or through direct contact with respondents, the 219 Census responses were extrapolated to identify a total of 267 health library campuses, branches or services, most with their own unique NUC symbol. In addition, a further 61 LIS, that could have fit within the broad scope of the Census but did not take part, were identified. When these figures are included, the total number of health library campuses, branches or services rises to 32812. Regardless, unless specifically stated otherwise, all Census results are reported based on 216 respondents providing 219 Census responses.

Sixty nine percent (69 percent) of the 216 participants answered all Census questions. This figures jumps to 88 percent when examining the number of participants answering 90 percent and above of all questions.

Table 1 Percentage of Census questions answered by participants.

Percentage of Census Questions Answered	Number of Respondents	Percentage
100%	149	69%
95-99%	37	17%
90-94%	4	2%
80-89%	11	5%
70-79%	4	2%
1-50%	8	4%
0%	3	1%
TOTAL	216	100%

Respondents were asked to select which statement or statements best described their library's status within their organisation. Two hundred and twenty eight (228) responses were recorded by the 219 respondents indicating that a small number of participants chose more than one statement (Table 2). Just under half of all responses (49 percent) indicated that the health LIS can be described as an independent department of their organisation. Thirty–two percent (32 percent) of libraries provided a specialised information service but did not operate as departments in their own right.

¹² A small number of libraries included in this figure did not participate in the Census assumedly because they were categorised as 'special' rather than health libraries. However, if they were originally counted in the 2002 Census and still appear to hold significant health related collections, they were included this count.

Table 2: The status of health LIS within organisations

The statement(s) that best described the health LIS's status within the organisation. More than one response could apply (n=219)	Number of LIS	Percentage
The health library / information service is an independent department of the organisation with a manager who has service direction, budget holding and decision making responsibilities.	108	49%
The health library / information service provides a specialised information service within a larger organisation but does not function as a department in its own right.	71	32%
The health library / information service is a branch library of an organisation and has a manager / coordinator / liaison leader who participates in service development decisions, budget and decision making processes within defined responsibilities.	25	11%
Other	19	9%
No response recorded	5	2%
TOTAL	228	104%

Australian health LIS were spread across all states and territories and one respondent had a presence overseas (Table 2). Again, participants could choose more than one response.

Table 3: Geographic distribution of respondents

States/Territories in which health library/information services were located. More than one response could apply (n=219)	Number of LIS	Percentage
Victoria	74	34%
New South Wales	66	30%
Queensland	37	17%
Western Australia	21	10%
South Australia	17	8%
Australian Capital Territory	8	4%
Tasmania	7	3%
Northern Territory	4	2%
Overseas	1	0%
No response recorded	5	2%
TOTAL	240	110%

The size of the general population of Australian States and Territories, ranked from greatest to lowest, in December 2014 was: New South Wales (NSW), Victoria, Queensland, Western Australia (WA), South Australia (SA), Tasmania, Australian Capital Territory (ACT) and Northern Territory (NT)¹³. Comparing this to the number of health LIS per State and Territory, there are some differences but generally the figures in Table 3 are comparative: the number of health LIS operating in Victoria and NSW top the list, followed by Queensland, WA and SA in the middle band and ACT, Tasmania and NT having the smallest number of health LIS.

When the geographic location of all 328 health library campuses, branches or services, that were identified during the course of the Census project as being active and unique, are grouped according to their NUC code identifiers, or contact address where there was no NUC code, the geographic breakdown changes slightly such that New South Wales has a higher number of health LIS than Victoria. It should be noted that unlike the data in Table 3, the data in Table 4 counts one response only per health library campus, branch or service.

Table 4: Geographic distribution of all identified health library campuses, branches or services

States/Territories in which all identified health library campuses, branches or services are located (n=330)	Number of LIS	Percentage
New South Wales	104	32%
Victoria	96	29%
Queensland	48	15%
South Australia	27	8%
Western Australia	26	8%
Australian Capital Territory	10	3%
Northern Territory	10	3%
Tasmania	7	2%
TOTAL	328	100%

¹³ Australian Demographic Statistics, Dec 2014, Australian Bureau of Statistics. http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/3298C71DA9615B25CA257EC9001360C4?opend ocument

Health LIS predominantly operated in metropolitan areas (Table 5). Again, this is similar to ABS population data¹⁴ for the general population which shows that over two-thirds of Australians live in major cities.

Table 5: Regional distribution of health LIS

The region(s) in which health LIS were located. More than one response could apply (n=219)	Number of responses	Percentage
Capital City	160	73%
Regional Town or City	67	31%
Rural/remote area	9	4%
No response recorded	5	2%
TOTAL	241	110%

Table 6: Respondents by sector

The general sector classification that best describes health	Number of	
library/information services (n=219)	responses	Percentage
Public sector - State/Territory	88	40.2%
Public sector - Commonwealth (inc. Universities)	45	20.5%
Not-for-profit sector only	43	19.6%
Private sector only	19	8.7%
Private, not-for-profit	11	5.0%
Other (Please specify in comments)	8	3.7%
No answer provided	5	2.3%
TOTAL	219	100.0%

The majority of health LIS were found in the public sector (60.7 percent) and, therefore, were government operated. This was followed by the not-for-profit sector (19.6 percent) and then the private sector (13.7 percent) (Table 6).

What was evident from comments provided to this question was that some respondents were unsure which sector they operated in and perhaps in any future Census the various sectors

¹⁴ 3218.0 - Regional Population Growth, Australia, 2013-14: Estimated resident population by remoteness structure, Australian Bureau of Statistics.

http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/3218.0Main%20Features152013-

^{14?}opendocument&tabname=Summary&prodno=3218.0&issue=2013-14&num=&view=

need to be explicitly defined. It may also be appropriate to give respondents the opportunity to choose more than one response.

Table 7: Types of organisations to which health LIS provided services

The type of organisation health library/information services	Total	Percent
served. More than one answer could apply. (n=219)		
Hospital	112	51%
University	87	40%
Community health	60	27%
Mental health	48	22%
Public health	46	21%
Research institute	45	21%
Government department	36	16%
Consumer or patient health organisation	24	11%
Primary care (GPs or private practices)	20	9%
Health professional association or college	20	9%
Pathology	16	7%
Pharmacy and drug industry or company	12	5%
Dentistry	11	5%
Health informatics	5	2%
Commercial publisher	3	1%
Biotech industry	2	1%
Consulting firm	2	1%
Veterinary	1	0%
Other	33	15%
No response recorded	6	3%
TOTAL	589	269%

In asking about the types of organisations health LIS provide services to, participants could select from 19 organisational types and could chose more than one response. Of the 219 survey registrants, 213 selected 583 responses (6 recorded no response) indicating that one or more choices were selected by multiple libraries (Table 7). In line with the results of the neXus3 study, hospitals and universities topped the list. The next largest organisational type selected was community health.

This question was not asking about the primary industry of the health LIS's parent organisation but rather the types of organisations health LIS provide services to. For example, a health LIS situated in a tertiary referral hospital may have selected 'university', 'community health' and

'consumer or patient health organisation' as well as 'hospital' in response to this question. Therefore, responses to this question do not provide overall numbers of hospital libraries versus university libraries versus community health libraries versus consumer/patient health libraries. etc.

Thirty three (33) comments expanded upon participants' responses to this question and suggested that some care should be exercised when analysing the results of this question. To expand on this, a group of health LIS responded to reveal a client base that was wide-reaching and not restricted to any specific type of organisation, i.e., they provided services to any requestor. The types of health LIS affected included, but were not restricted to, various state and national disability services and drug and alcohol services. With regard to how they answered this census question, it was in one of three ways: they used the available organisational types listed and marked a wide selection; they chose the 'Other' option; or they chose a selection of organisation types as well as the 'Other' option.

Size of health LIS workforce

Respondents were asked to record the number of paid health library staff positions, expressed as full-time equivalents, as at 31st October 2014, regardless of whether the position was filled or vacant. Responses were recorded by 203 respondents representing 206 census responses (Table 8). Almost two-thirds (64 percent) of all reported health LIS workforce positions were held by health librarians and the majority (95 percent) of those were permanent positions. Twenty-two percent (22 percent) of all health LIS positions reported were library technician jobs, again the majority (91 percent) being permanent positions. Non-LIS qualified staff were defined as those who were directly involved in the operations of the health LIS and could include administrative support staff and/or those with qualifications and experience in fields other than library and information science. This group of staff made up 14 percent of the total number of reported positions. It should be noted that in larger LIS, such as university libraries, in which many services are centralised and it is difficult to apportion the number of staff providing services specific to the health sciences (for example, purchasing, cataloguing, information technology, etc), respondents were instructed to only include staff that directly provided library and information services to the health sciences.

Table 8: Size of health library workforce expressed as full-time equivalents

	Employment Status		
Staff Count - FTE as at October 2014 (n=206)	Number of permanent FTE	Number of temporary/ contract/ casual FTE	Total number of FTE
Health Librarians	380.6 (a)	22.2 (b)	402.8 (c)
Library Technicians	124.6 (d)	11.7 (e)	136.3 (f)
Non-LIS Qualified Staff	69.7 (g)	19.4 (h)	89.1 (i)
Total	574.9 (j)	53.3 (k)	628.2 (I)

Tables 9 – 11 present a further breakdown the figures for full-time equivalents.

Table 9: Percentage of FTE employed in health libraries according to role

Staff - FTE (n=206)	All types of employment statuses		
Health Librarians	64% (c/l)*		
Library Technicians	22% (f/l)*		
Non-LIS Qualified Staff	14% (i/l)*		
Total	100%		

^{*} calculations based on data in table 8

Table 10: Percentage of FTE employed in health libraries according to employment status

	Employment Status		
Staff - FTE (n=206)	Percentage of FTE permanent staff	Percentage of FTE temporary/ contract/ casual staff	Total
Health Librarians	94% (a/c)*	6% (b/c)*	100%
Library Technicians	91% (d/f)*	9% (e/f)*	100%
Non-LIS Qualified Staff	78% (g/i)*	22% (h/i)*	100%

^{*} calculations based on data in table 8

Table 11: Percentage of permanent versus casual full-time equivalents employed in health libraries

	Employment Status		
Staff - FTE (n=206)	Percentage of FTE permanent staff	Percentage of FTE temporary/ contract/ casual staff	
All staff employed	92% (j/l)*	8% (k/l)*	

^{*} calculations based on data in table 8

Respondents were also asked to record the actual number of people employed in the health LIS, which is otherwise known as a headcount (Tables 12–16). Again, responses were recorded by 203 respondents representing 206 unique health LIS.

As this question was asking about the number of actual people employed, regardless of the number of hours worked, any valid entry should have been recorded as a whole number. However, some responses were recorded as fractions indicating that there was some confusion on the part of some of the respondents over the definition of headcount.

Table 12: Size of health library workforce expressed as headcount - unadjusted

	Employment Status			
Staff - HEADCOUNT (n=206)	Number of permanent full-time employees	Number of permanent part-time employees	Number of temp/ contract/ casual employees	Total
Health Librarians	321.9	123.9	30.9	476.6
Library Technicians	93.7	59.3	28.6	181.6
Non-LIS Qualified Staff	60.5	30.5	30.2	121.2
Total	478.1	213.6	89.7	781.4

Drilling down into the responses, 18 of 206 responses (8.7 percent) for the health librarian category were recorded as fractions, 4 of 206 (1.9 percent) for the library technician category and 9 of 206 (4.4 percent) for 'other'.

In order to gain a more meaningful picture of the number of people employed by health LIS across Australia, all individual responses recorded as a fraction were adjusted up to 1 (table 13). For example, if a health LIS recorded a headcount figure of 0.6, this was adjusted to a figure of 1. It needs to be recognised that any fraction recorded by respondents could in fact reflect more than 1 person but rounding up to the next whole number at least provides an indicator of the *minimum* number of staff that could occupy the recorded hours.

Table 13: Size of health library workforce expressed as headcount (adjusted figures)

	Employment Status			
Staff - HEADCOUNT (n=206)	Number of permanent full-time employees	Number of permanent part-time employees	Number of temp/ contract/ casual employees	Total
Health Librarians	324 (m)	125 (n)	31 (o)	480 (p)
Library Technicians	94 (q)	60 (r)	29 (s)	183 (t)
Non-LIS Qualified Staff	63 (u)	31 (v)	31 (x)	125 (y)
Total	481 (z)	216 (aa)	91 (bb)	788 (cc)

Table 14: Percentage of employees in health libraries according to role (adjusted figures)

Staff - HEADCOUNT (n=206)	Percentage of all types of employment status	
Health Librarians	61% (p/cc)*	
Library Technicians	23% (t/cc)*	
Non-LIS Qualified Staff	16% (y/cc)*	
Total	100%	

^{*} calculations based on data in table 13

Table 15: Number of employees in health libraries expressed as a percentage (adjusted figures)

	Employment Status				
Staff - HEADCOUNT (n=206)	Percentage of permanent full-time employees	Percentage of permanent part-time employees	Percentage of all permanent employees	Percentage of temp/ contract/ casual employees	Total
Health Librarians	68% (m/p)*	26% (n/p)*	94% (m+n/p)*	6% (o/p)*	100%
Library Technicians	51% (q/t)*	33% (r/t)*	84% (q+r/t)*	16% (s/t)*	100%
Non-LIS Qualified Staff	50% (u/y)*	25% (v/y)*	75% (u+v/y)*	25% (x/y)*	100%

^{*} calculations based on data in table 13

Table 16. Percentage of all employees in health libraries according to employment status (adjusted figures)

	Employment Status		
Staff - HEADCOUNT (n=206)	Percentage of permanent full-time employees	Percentage of permanent part-time employees	Percentage of all permanent employees
All staff employed	61% (z/cc)*	27% (aa/cc)*	12% (bb/cc)*

^{*} calculations based on data found in table 13

Overall, the figures for full-time equivalents and headcount reveal that 206 Australian health LIS offered paid employment to at least 788 people (Table 13) in 628.2 FTE positions (Table 8). Health librarians made up approximately two-thirds of all positions in the health library workforce, library technicians just over one-fifth and non-LIS qualified staff the remainder (Table 9). The vast majority of all positions held by staff working in health libraries were permanent in nature (Table 11). Of all permanent positions, just over one-quarter were permanent part-time (Table 12). Of the 628.2 full-time positions available in the responding health libraries, 60.3 FTE were vacant (Table 17), which was a vacancy rate of just under 10 percent. Of all vacancies, nearly 70 percent were for health librarian positions.

Table 17: Number of vacant positions expressed as full-time equivalents

Number of vacant positions expressed as full-time equivalents (n=53)	Permanent Full-Time	Permanent Part-Time	Temp/Contract/ Casual	TOTAL
5.01 Health Librarians*	37.1	3.5	1.5	42.1
5.02 Library Technicians**	8.0	2.8	0.5	11.3
5.03 Non-LIS Qualified Staff***	4.5	2.4	0.0	6.9
TOTAL	50.6	8.7	2.0	60.3

^{* 32} health LIS recorded a response greater than zero, 163 recorded a response of zero and 24 recorded no response.

Table 18: Reasons for health LIS vacancies

Reasons why health LIS have vacant positions. More		
than one response can apply. (n=35)*	Responses	Percentage
Recruitment process underway	14	40%
Position under review and may change	10	29%
Staff freeze in place	8	23%
Unable to attract suitably qualified applicants	4	11%
For reasons other than those listed	9	26%
TOTAL	45	129%

^{*} Of the 219 census responses received, 123 recorded that this question was not applicable and 61 of 219 did not record a response.

Fifty three (53) health LIS reported having staff vacancies (Table 17) of which 35 provided a reason for these vacancies (Table 18). Recruitment was underway in 40 percent of the libraries that responded, in 29 percent positions were under review, positions could not be filled as a result of staff freezes in 23 percent, 11 percent were unable to attract suitable qualified applicants and the remainder (26 percent) were for reasons other than those listed.

As has been reported in other studies (Hallam et al 2011), the majority of health LIS (58 percent) had over 90 percent female staff (Table 19).

^{** 12} health LIS recorded a response greater than zero, 183 recorded a response of zero and 24 recorded no response.

^{*** 9} health LIS recorded a response greater than zero, 186 recorded a response of zero and 24 recorded no response.

Table 19: Percentage of female staff with LIS qualifications

Percentage of female staff with LIS qualifications (n = 219)	Number of LIS	Percentage
0%-10% of staff with LIS quals are female	20	9%
31%-40% of staff with LIS quals are female	2	1%
41%-50% of staff with LIS quals are female	9	4%
51%-60% of staff with LIS quals are female	7	3%
61%-70% of staff with LIS quals are female	13	6%
71%-80% of staff with LIS quals are female	10	5%
81%-90% of staff with LIS quals are female	20	9%
91%-100% of staff with LIS quals are female	126	58%
No response recorded	12	5%
TOTAL	219	100.0%

With regards to the movement of LIS qualified staff in and out of the health library sector, the next two questions inquired about new graduates versus those due to retire. New graduates were defined as having qualified within the last 5 years while impending retirees were defined as those reaching a retirement age of 65 years within the next 5 years. Almost one–fifth (18 percent; 40 health LIS) had 1 or more new graduates on staff (Table 20). The majority of health LIS (74 percent; 163 health LIS) had no new graduates on staff. While the majority of health LIS (57 percent) indicated that no LIS qualified staff were eligible to retire within the next 5 years (Table 21), almost 36 percent had one or more LIS qualified staff eligible to retire within the next 5 years. These figures possibly indicate more LIS qualified staff leaving the sector than moving into it.

Table 20: Number of staff with LIS qualifications who graduated within the last 5 years

Number of staff with LIS qualifications who were new graduates (graduated in last 5 years) (n=219)	Number of LIS	Percentage
0 new grads	163	74.4%
1 new grad	30	13.7%
2 new grads	8	3.7%
4 new grads	1	0.5%
11+ new grads	1	0.5%
Unsure	4	1.8%
No response recorded	12	5.5%
TOTAL	219	100.0%

Table 21: Number of staff with LIS qualifications due to reach a retirement age of 65 years within the next 5 years

Number of staff with LIS qualifications due to reach retirement age in the next 5 years (n=219)	Number of LIS	Percentage
0 impending retirees	125	57.3%
1 impending retiree	50	22.7%
2 impending retirees	20	9.1%
3 impending retirees	4	1.8%
5 impending retirees	2	0.9%
6 impending retirees	2	0.9%
8 impending retirees	1	0.5%
Unsure	4	1.8%
No response recorded	11	5.0%
TOTAL	219	100.0%

Services provided by health LIS

The final part of the Census explored the types of services provided by health LIS. Services were divided into 6 areas: information; education; access, materials, building and equipment; and technology.

Of the total 219 Census responses recorded, 149 (68 percent) had a completion rate of 100 percent. Analysis is based on these 149 responses to allow for a complete and unbiased picture of actual activity.

Of the 149 health LIS responses analysed, 79 percent responded that students were significant users of their services, 76 percent had researchers as significant users followed by clinical staff (73 percent), organisational staff (62 percent), management/senior executives (58 percent) and academics/faculty (54 percent). Figures dropped sharply for the remaining user groups.

Table 22: Significant groups of users of health LIS services, staff time or resources

Significant groups of users of health LIS services, staff time or resources. More than one response could apply. (100% census completion by n=149)	Number of LIS	Percentage
Students	118	79%
Researchers	113	76%
Clinical staff	109	73%
Organisational staff	93	62%
Management/senior executives	87	58%
Academics/faculty	80	54%
Professional college members	23	15%
Fee-for-service clients/subscribers	17	11%
General public	17	11%
Patients and families	16	11%
Other	12	8%
TOTAL	685	460%

If comparing the significant users of health LIS (Table 22) with the types of organisations health LIS provide services to (Table 23) for the 149 responses only, students, researchers and clinical staff were the top 3 user groups which correlated with hospitals and universities being at the top of the list of organisations served.

Table 23: Types of organisations to which health LIS provided services

The type of organisations health LIS serve. More		
than one choice could apply (n=149; 100%	Total	Percent
completion of the census)		
Hospital	78	52%
University	64	43%
Community health	45	30%
Mental health	36	24%
Public health	35	23%
Research institute	27	18%
Government department	26	17%
Consumer or patient health organisation	17	11%
Health professional association or college	16	11%
Other (Please specify in comments)	15	10%
Primary care (GPs or private practices)	12	8%
Pathology	12	8%
Dentistry	8	5%
Pharmacy and drug industry or company	8	5%
Health informatics	3	2%
Biotech industry	2	1%
Veterinary	1	1%
Consulting firm	1	1%
Commercial publisher	1	1%
TOTAL	407	273%

Twenty-nine comments were received (Appendix 4) offering either an extended explanation of the users of health LIS, including finer sub-categories, or additional categories of users that had not been listed in the Census survey. Examples include clinical educators, other libraries, fee paying members or subscribers and other organisations associated with the LIS as a result of service agreements or location.

Table 24: The INFORMATION services offered by the health LIS to their users and/or their wider organisation

INFORMATION services health LIS offered to patrons and/or the wider organisation. More than one response could apply. (100% census completion by n=149)	Number of LIS	Percentage
Reference services	140	94%
Research support services	132	89%
Subscription mgt / content licensing services	111	74%
Education / Continuing Professional Development		
/ Teaching support services	108	72%
Mediated search services	104	70%
Current awareness services	103	69%
Resource guides	103	69%
Selective Dissemination of Information (SDI)		
services including alerts, monitoring or tracking		
reports, or updates	93	62%
Citation management	93	62%
Services related to EBP	86	58%
Repository development and management	58	39%
Policy /guideline /protocol development		
/management	56	38%
Newsletters	56	38%
Clinical, 'informationist', liaison, embedded		
librarian service	45	30%
Knowledge management services	43	29%
Bibliometrics	34	23%
Research data management	30	20%
Research analysis	21	14%
Information and knowledge audits	18	12%
Information brokerage / advisory/ consultancy		
services	15	10%
None of the above	1	1%
Total	1450	973%

The types of information services offered by respondents spanned all listed options (Table 23). The most prevalent services spanned those considered more traditional library services:

reference services (94 percent), research support services (89 percent), subscription management or content licensing services (74 percent), education and teaching related services (72 percent), mediated search services (70 percent), current awareness services (69 percent), resource guides (69 percent), alerting services (62 percent), citation management (62%) and services related to evidence–based practice (58 percent). Less traditional services, or those that have been identified as future possible roles for health LIS and health librarians (see, for example, Lawton and Burns 2015, Brettle and Urquhart 2012, Library of the Future Task Force 2012 and Lynn, Fitzsimmons and Robinson 2011), garnered fewer responses. For example, clinical or embedded librarians /informationists and knowledge management services were selected by 30 and 29 percent of libraries respectively.

Not surprisingly, the most significant service provided under the 'education' heading (Table 24) was user education (92 percent). Only 7 percent of the 149 health LIS offered patient education type services and another 7 percent provided no education services as part of their role.

Table 25: The EDUCATION services offered by the health LIS to their users and/or their wider organisation

EDUCATION services health LIS offered to patrons and/or their wider organisations. More than one answer could apply. (100% census completion by n=149)	Number of LIS	Percentage
User education/ information literacy/ elearning	137	92%
Patient education services	11	7%
None of the above	11	7%
Total	159	107%

In terms of access to health LIS (Table 25), this was heavily provided through library catalogues (88 percent) and library web sites (84 percent). Subject guides were offered by 58 percent of responding health LIS. Virtual reference was made available by 41 percent of LIS and outreach services by 39 percent. The use of social media as an access point was used by a third of responding health LIS (32 percent), which is consistent with the reported uptake of social media by small to medium sized Australian business (Sensis 2015).

Table 26: The ACCESS services offered by the health LIS to their users and/or their wider organisation

ACCESS services health LIS offered patrons and/or their wider organisation. More than one response could apply. (100% census completion by n=149)	Number of LIS	Percentage
Catalogue	131	88%
LIS's homepage / web site	125	84%
Subject guides	87	58%
Virtual reference	61	41%
Outreach services	58	39%
LIS's social network tools	47	32%
None of the above	7	5%
Total	516	346%

Table 27: The MATERIALS services offered by the health LIS to their users and/or their wider organisation

The MATERIALS services health LIS offered to patrons and/or their wider organisation. More than one choice could apply. (100% census completion by n=149)	Number of LIS	Percentage
Interlibrary loans/document delivery	142	95%
Print collection lending services	140	94%
Print collection development/management	136	91%
Electronic collection development/management	131	88%
Fee-based/subscription databases	93	62%
Reserves	90	60%
Electronic collection lending services	78	52%
Equipment lending – laptops, projectors,		
handhelds, PDAs, smartphones	45	30%
Archives	43	29%
Preservation	25	17%
Records management	19	13%
None of the above	2	1%
Total	944	634%

In terms of materials related services, the top four services offered by health LIS were interlibrary loans (95 percent), the lending of print collections (94 percent), print collection development (91 percent) and, trailing print slightly, electronic collection development (88 percent) (Table 26). Just over half of the health LIS lent out electronic collections.

Table 28: The BUILDING and EQUIPMENT services offered by the health LIS to their users and/or their wider organisation

The BUILDING and EQUIPMENT services LIS offered to patrons and/or their wider organisation. More than one choice could apply. (100% census completion by n=149)	Number of LIS	Percentage
Printing and copying	124	83%
Computers for client use	121	81%
Study spaces	118	79%
Reading areas	118	79%
Meeting/tutorial rooms	71	48%
Dedicated Computer labs	49	33%
None of the above	15	10%
Total	616	413%

With regards to building and equipment, the most prevalent service provided by health LIS was printing and copying (83 percent) (Table 27). Eighty-one percent (81%) of health LIS made computers available to users as well as study spaces (79 percent) and reading areas (79 percent). Almost half (48 percent) had tutorial rooms and one third (33 percent) had dedicated computer laboratories.

The final service category was technology (Table 28). Unlike services and facilities listed under other headings, the provision of technology related services by health LIS to patrons or their organisation was much lower. Less than half (42 percent) of all responding health LIS supported users in their use of technology. Thirty percent (30 percent) provided digital repository services but only 21 percent offered a digitisation service. Internet and intranet development and/or management was provided by 28 and 25 percent of health LIS respectively.

Table 29: The TECHNOLOGY services offered by the health LIS to their users and/or their wider organisation

The TECHNOLOGY services health LIS offered to patrons and/or their wider organisation. More than one choice could apply. (100% census completion by n=149)	Number of LIS	Percentage
Technology support	62	42%
Digital repository services	45	30%
Internet development/management	41	28%
Intranet development/management	37	25%
Digitisation services	32	21%
Database development	19	13%
Graphic design	11	7%
None of the above	48	32%
Total	295	198%

The final two questions on the census were open ended questions and analysis incorporates all responses and not just those provided by the 149 health LIS that completed 100 percent of the census.

The first of these two open ended questions asked respondents to outline any additional services the health LIS offered to patrons and/or their wider organisation that had not been listed under the six service categories information, education, access, materials, building and equipment and technology. Sixty-nine (69) comments were submitted and can be found in Appendix 4.

A number of the 'additional services' volunteered could be categorised as either narrower subsets of those services listed in the Census or additional services that might be considered for inclusion in any future census. These comprised: involvement in education at an academic level and encompassed roles such as learning skills advisor and curriculum developer; emphasis on centralised purchasing, procurement and collection management for the entire organisation; involvement in various parts of the research 'lifecycle' process including co–authoring, searching, reviewing, proofing; referencing, etc, for which the phrase 'research support services' (Table 23) was too broad an option to convey the depth and breadth of work involved;

Additional services that could be considered for inclusion in any future census include: copyright services (information); publication preparation – proofing, style guides and reference checking (information); authentication systems (access); responsibilities for archives and

historical collections (materials); special collections (materials); room and equipment booking (building and equipment); co-ordination and management of licenses (technology); software management (technology); provision of wifi (technology).

Collaboration in projects and committees outside of the health LIS were listed by a number of respondents. In other instances the health LIS had responsibilities for quite specific service delivery beyond what might normally be associated with a health LIS (pamphlet service; referral services).

Finally, some services were wholly unique and possibly exclusive to that health LIS and its staff. For example, one health LIS was involved in "event management" for medical education and consumer education. One respondent was writing the organisation's history. Another health LIS was the Australian agent for an overseas publisher. Yet another monitored and collected royalties for use of the organisation's crest.

The final question in the Census requested respondents to note any significant changes in service delivery the health LIS had experienced in the previous 12 months. Two hundred and eight (208) responses were received in total of which seventy-two (72) respondents reported no change or reported that they were too new in their position to make comment. Simple analysis was made on the comments received, by the remaining one hundred and thirty-six (136) respondents, to identify any recurring themes. Most prolific (approximately one third) proffered remarks that centred around the implementation of new or enhanced software and/or the growth in electronic resources and services with the implication, or outright statement, of a change or enhancement in service delivery. Some of the health LIS indicated that this meant a reduction in print resources and/or face-to-face interaction with clients but, conversely, it also represented for some an increase in online usage of library services and resources. The second most frequent cluster of comments (approximately 15 percent) related to the failure of vacant positions to be filled, decreases in library staffing numbers, or staffing levels not meeting need. By contrast, only about 5 percent of health LIS indicated that staffing had increased. Approximately 10 percent of health LIS indicated that there had been or there was expected to be increased demand for research services, including systematic reviews. Around 20 percent of health LIS noted 'space' related changes, many more negative than positive. Space related changes encompassed both increases and reductions in the amount of floor space allocated to health LIS, temporary relocations, refurbishments and redevelopments, mergers and closures. Typically reductions in space led to reductions in the size of the LIS's physical collection. Of interest, around 8 percent had experienced budget cuts or constraints and approximately 8 percent discussed changes in the health LIS's governance or reporting structures. Some kind of embedded, liaison, outreach or clinical librarian service was raised by 7 respondents as a

significant change either during the previous 12 months, or identified this as an upcoming service as a result of service changes that aligned the health LIS with their organisation's needs. Self-service was specifically mentioned by 4 respondents.

4.2 Results of the Census of Self-Described Health Librarians Working Outside the Traditional Library Service Setting

There were 15 participants in the Census of self-described health librarians working outside the traditional library setting.

Ahead of the Census of Australian Health LIS, public records provided indicators of the number of possible respondents to that Census (see page 13, *Sources of data about Australian health libraries*). This was not possible with the Census of Self-described Health Librarians and it is unknown if all eligible respondents took part in this Census.

All respondents were female (Table 29) and resided (Table 30) in the same States of Australia in which they worked (Table 31). Two-thirds resided and worked on the eastern seaboard. One respondent lived and worked outside of Australia. The majority (67 percent) worked in capital cities (Table 32).

Table 30: Gender of self-described librarians

Gender of self-described librarians working outside the traditional library setting	Number of responses	Percentage
Female	15	100.0%
TOTAL	15	100.0%

Table 31: State of residence of self-described librarians

State of residence of self- described librarians working outside the traditional library setting	Number of responses	Percentage
New South Wales	4	26.7%
Queensland	3	20.0%
Victoria	3	20.0%
South Australia	2	13.3%
Western Australia	2	13.3%
Overseas	1	6.7%
TOTAL	15	100.0%

Table 32: State or Territory self-described librarians worked in

State/Territory self-described librarians working outside the traditional library setting worked in	Number of responses	Percentage
New South Wales	3	21%
Queensland	3	21%
Victoria	3	21%
South Australia	2	14%
Western Australia	2	14%
Overseas	1	7%
TOTAL	14	100%

Table 33: Region self-described librarians worked in

Region self-described librarians working outside the traditional library setting work in	Number of responses	Percentage
Capital City	10	67%
Regional Town or City	4	27%
N/A	1	7%
TOTAL	15	100%

While the Census did not ask participants to list their library and information science qualifications, all 15 respondents indicated they were eligible to work as librarians. Of the 15 participants in the Census of self-described librarians working outside the traditional library setting, 2 could also work as library technicians (Table 33).

Table 34. Positions self-described librarians are eligible to hold based on their library and information science qualifications

Positions self-described librarians working outside the traditional library setting are eligible to hold based on their library and information science qualifications	Number of responses	Percentage
Librarian only	13	86.7%
Library Technician only	0	0.0%
Both Librarian and Library Technician	2	13.3%
TOTAL	15	100.0%

None of the respondents had graduated within the last 5 years (Table 34), and in terms of retirement, 2 of 15 were due to reach a retirement age of 65 years within the next 5 years (Table 26)

Table 35: Number of self-described librarians who are new graduates

Number of self-described librarians working outside the traditional library setting who were new graduates (graduated within last 5 years)	Number of responses	Percentage
Graduated within the last 5 years	0	0.0%
Not a new graduate, qualification was completed		
more than 5 years ago	15	100.0%
TOTAL	15	100.0%

Table 36: Number of self-described librarians reaching retirement age (65 years) within the next 5 years

Number of self-described librarians working outside the traditional library setting reaching retirement age (65 years) within the next 5 years	Number of responses	Percentage
Yes, I will reach retirement age in the next 5 years	2	13.3%
No, I will not reach retirement age in the next 5 years	13	86.7%
TOTAL	15	100.0%

Fourteen (14) of the respondents were working in a health information related role (Table 36). No distinction was made as to whether the work was undertaken in a paid or unpaid capacity. The one person not working in such a role indicated she had no plans to return to the sector in the future and exited the Census at this point. Results from this point on pertain to the remaining 14 respondents.

Table 37: Respondents currently working in a health information related role

Number of self-described librarians working outside the traditional library setting currently working in a health information related role (paid and unpaid work)	Number of responses	Percentage
Working in a health information related role		
(If you answer 'yes', please skip the next question.)	14	93.3%
Not working in a health information related role		
(If you answer 'no', please answer the next question.)	1	6.7%
TOTAL	15	100.0%

Six (6) of the 14 participants worked on a contract or fixed term basis, 3 held full-time permanent positions, 2 were self-employed, 1 was part-time, 1 casual and 1 volunteered (Table 37). When asked about the number of hours worked in the last week only 3 responses were submitted. Only one respondent actually noted the specific number of hours worked.

Table 38: Employment status of self-described librarians

Current employment status of self- described librarians working outside the traditional library setting	Number of responses	Percentage
Contract/Fixed term	6	42.9%
Full-time permanent	3	21.4%
Self-employed	2	14.3%
Part-time permanent	1	7.1%
Casual	1	7.1%
Volunteer	1	7.1%
TOTAL	14	100.0%

The remaining results identify the range of services supplied by this group of self-described health librarians and to whom they provided these services. This group of Census questions was a replicate of those asked in the Census of Australian Health LIS. Services were grouped into 6 broad areas: information; education; access, materials, building and equipment; and technology.

Due to the small number of responses, results from this section of the Census are presented in a single table (Table 38) and reveal the nuances of each position in relation to each other and with regards to users and services.

The first things to note are the types and/or location of positions held by respondents. Fifty percent (7 of 14 respondents) provided information services within a research environment regardless of the final end users of these information services. They either held positions within research teams or at research centres and 4 specifically mentioned links with universities:

- worked in a university; developed subject specific search filters and associated research and publication for an independent information service
- based in a university research team developing research filters
- worked with research teams in a specific subject area
- based in a research centre at a university; assisted a Trials Search Coordinator of a Cochrane group
- employed as a research assistant in an evidence-based centre which is based in a university
- worked at a research centre funded by NHMRC grants
- worked at/provided services to a research institute.

Of the remaining 7 respondents, there were a range of settings in which these self-described health librarians worked:

- operator of own independent information business which had a major health service as a client
- as a health information consultant providing services to students, the general public and home business owners
- in the online publishing industry largely responsible for health collection content
- as a sole practitioner whose library had been closed but still supplying an information service,
- a government department,
- a mental health organisation
- as a researcher of health library and information services.

In terms of the user groups health librarians working outside the library setting provided services to, the top 2 consumer groups were researchers (86 percent) and clinical staff (71 percent). Fifty percent (50 percent) of the respondents provided services to academics / faculty members. Students fell to 4th on the list of users of self-described health librarians (43 percent) whereas students topped the list of users in the census of health libraries.

The types of information services offered by respondents spanned all listed options. However the most prevalent were mediated search services (71 percent), citation management (71

percent), reference services (64 percent) and services related to evidence-based practice (64 percent). Fifty percent (50 percent) of health librarians provided information services that supported education, teaching and continuing professional development, the provision of resources guides and knowledge management services.

The most significant education service provided was user education (71 percent). Only 1 librarian offered patient education. Four of the fourteen (29 percent) provided no education services as part of their role.

Results were less definitive for those services or tools that function as access points to information services. These include entry points such as a home pages, catalogues, social networking tools, etc. The most prevalent access service selected by respondents was LIS website or home page (43 percent). Of note, a third did not provide any services within the access domain.

Of the range of items listed under materials services, the largest response was from 7 of 14 participants who provided development and/or management of electronic collections. By comparison only 2 of 14 managed or developed print collections as part of their role. Again, one third did not provide any services within the access services domain. Interestingly, those working in a research environment supplied significantly fewer materials related services than the other 7 self-described health librarians.

Given that census participants worked outside the traditional library setting it is not surprising that 11 of the 14 respondents did not provide any of the services listed under building and equipment.

The final service category was technology. Overall, 50 percent (7 of 14) of participants offered users technology support. Forty three percent (43 percent) provided internet development and/or management and 36 percent undertook database development. Like the materials services category those working in research environments were less likely to provide services in this category.

Table 39: Users of and services provided by self-described health librarians working outside the traditional library setting

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Researchers	✓	✓	✓	✓	✓	✓	✓	✓		/	√	✓	✓		12	86%
Clinical staff	✓	✓	✓	√	✓		✓	√			✓	✓	✓		10	71%
Academics/faculty	✓	✓	✓	✓	✓		✓			✓					7	50%
Students	✓	✓					✓		✓	√	✓				6	43%
Management/senior executives	✓	✓						✓			✓	✓	✓		6	43%
Organisational staff	✓	✓									✓	✓	✓		5	36%
Professional college members	✓	✓	✓												3	21%
General public	✓	✓							✓						3	21%
Patients and families	✓	✓													2	14%
Fee-for-service clients/subscribers								✓		✓					2	14%
Other									✓					✓	2	14%
														TOTAL	58	414%
INFORMATION SERVICES																
Mediated search services	✓	✓	✓	✓		✓	✓	√		/	/		✓		10	71%
Citation management	✓		✓	/	/		✓	√	✓	/	✓		✓		10	71%
Reference services	√		✓	✓	✓		✓	√	√		✓		✓		9	64%
Services related to evidence-based																.,,,
practice - teaching EBP skills, critical																
appraisals, systematic review	✓		✓	✓	✓	✓	✓	✓			✓		✓		9	64%
Development / Teaching support																
services	✓	✓					✓	✓	✓		✓	✓	✓		7	50%
Resource guides	√	/					✓	√			✓	✓	✓		7	50%
Knowledge management services	✓	/					✓		√		✓	✓	✓		7	50%
(consultations to assist users to do their															- 1	20,0
own research)	✓			/		/	1	✓			/				6	43%
Current awareness services	√		✓				/	✓			/		✓		6	43%
(SDI) services including alerts,																1570
monitoring or tracking reports, or	✓		✓				✓	✓			✓		✓		6	43%
Policy/guideline/protocol																13/0
development/management	✓						1	✓			/	/	✓		6	43%
Newsletters (either print or electronic)																1570
compilation	✓	/							✓		/	✓	✓		6	43%
Research analysis	√	/	✓				/				/		✓		6	43%
Information brokerage/															-	.570
advisory/consultancy services	✓							✓	✓		✓		✓		5	36%
management	√	/	✓							/	· ✓				4	29%
Bibliometrics	√									· /	· ✓		✓		4	29%
Research data management	· ✓		✓								· /				4	29%
Subscription management or content															'	2370
licensing services	✓							✓		/	✓				3	21%
Clinical, 'informationist', liaison or																21/0
other embedded																
librarian/informationist service	✓										✓				2	14%
Information and knowledge audits	·										· /				2	14%
None of the above														✓	1	7%
Tone of the above														TOTAL	120	857%
														IUIAL	120	0J/70

Table 39: Users of and services provided by self-described health librarians working outside the traditional library setting (cont)

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EDUCATION SERVICES	ĺ				ſ			<u> </u>		<u> </u>						, ,
User education/information																
literacy/elearning	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓		10	71%
Patient education services	✓														1	7%
None of the above			✓	✓	✓									✓	4	29%
														TOTAL	15	107%
ACCESS SERVICES																
LIS's homepage / web site	✓	✓						✓		✓	✓		✓		6	43%
Virtual reference			✓		✓						✓		✓		4	29%
Catalogue					✓		✓			✓	✓				4	29%
Subject guides	✓	✓									✓		✓		4	29%
LIS's social network tools	✓										✓		✓		3	21%
Outreach services	✓										✓		✓		3	21%
None of the above				✓		✓			✓			✓		✓	5	36%
														TOTAL	29	207%
MATERIALS SERVICES																
Electronic collection															_	
development/management	✓						✓	✓		✓	✓		✓		7	50%
Interlibrary loans/document delivery								✓	✓		✓		✓		4	29%
Records management			✓						✓	✓			✓		4	29%
Archives	✓								✓	✓	✓				4	29%
Print collection							✓		/						ا م ا	1 40/
development/management		_					· ·		· /						2	14%
Print collection lending services													✓		1	7% 7%
Electronic collection lending services Fee-based/subscription databases										_			· ·		1	7% 7%
Equipment lending – laptops,										V						/76
projectors, handhelds, PDAs,			✓												1 1	7%
Preservation			•								✓				i	7%
None of the above		/		/	✓	_								/	5	36%
None of the above														TOTAL	31	221%
BUILDING & EQUIPMENT SERVICES																
Printing and copying			✓						/						2	14%
Computers for client use											✓				1	7%
Meeting/tutorial rooms			✓												i	7%
None of the above	✓	✓		1	✓	✓	✓	✓		✓		/	✓	✓	11	79%
														TOTAL	15	107%
TECHNOLOGY SERVICES																
Technology support	✓		✓						✓	✓	✓	✓	✓		7	50%
Internet development/management	✓	✓								✓	✓	✓	✓		6	43%
Database development	✓						✓			✓	✓		✓		5	36%
Digitisation services										✓		✓	✓		3	21%
Graphic design											✓	✓	✓		3	21%
Intranet development/management											✓	✓	✓		3	21%
Digital repository services										✓		✓	✓		3	21%
None of the above				✓	✓	✓		✓						✓	5	36%
														TOTAL	35	250%

5. DISCUSSION AND RECOMMENDATIONS

One of the underlying yet fundamental purposes of this project was to determine the number of health LIS operating in Australia and the size of the health LIS workforce. In the course of this project, 328 health LIS were identified, using NUC symbols as the unit of measure. Using a method of extrapolation, the health LIS workforce was estimated to be approximately 1,250 strong.

National Union Catalogue symbols as a unit of measure

NUC symbols were chosen as the unit of measure because they are widely recognisable and commonly used as identifiers across the Australian LIS sector and because, in the absence of any hard data, the sector has historically looked to the Australian Libraries Gateway, which links entries to NUC symbols, to provide an indicator of health LIS numbers. For some years now over 400 libraries have remained indexed in the ALG as 'health/medical'.

When arriving at a figure for the number of Australian health LIS it is important to note the parameters employed. Firstly, as stated, NUC symbols (and, in the absence of a NUC symbol, some other unique identifier) were used as the basic counting block. Secondly, the count included all LIS that participated in the Census regardless of library type. For example, the 1% of respondents that came from the public library sector were included. Thirdly, any active LIS, determined by the project group to reasonably fit within a broad definition of health LIS, but which did not contribute to the 2014 Census, was included in the count. Moreover, this latter group included all libraries identified in the 2002 Census (Kiesau 2003) that were still in operation in 2014 but which did not take part in the 2014 Census. While the inclusion of some libraries in this count could be disputed, this approach allowed for a logical point of comparison between the 2002 and 2014 census projects.

The use of NUC symbols is not without flaw. Their application can be inconsistent. There are organisations that, regardless of the number of physical libraries or service points in their makeup, consolidate all their service points under one NUC symbol. Conversely, other organisations will have one NUC symbol for every physical library or service point. In addition, unless a library or organisation contributes holdings to the Australian National Bibliographic Database or Trove, or participates in a formal interlibrary lending network, a NUC symbol is not required. However, this number is assumed to be low.

It is worth noting that in the course of this project the ALG was both a rich source of data and a dated one. The latter most likely occurred because the ALG is dependent on the libraries themselves to edit their own directory entries. In the event that a library is closed down, the person most likely responsible for updating the organisation's ALG entry has been redeployed or made redundant. While this presents a problem with regards to the counting

of active health LIS, there is inherent value in having access to outdated data as a possible means of tracking changes within the sector. Ideally, ALG entries would be tagged to indicate that the library in question has closed. In this way, a record of the library's existence remains but its status as no longer operational is clearly conveyed.

2002 versus 2014 Census data

In the 2002 census of Australian health LIS 334 unique library services were identified (Kiesau 2003) while in the 2014 Census 328 were identified. This equated to an overall reduction in the number of health LIS of approximately 2 percent over 12 years. This small reduction would indicate that Australian health LIS, by and large, have weathered the economic storms of the past two decades. Any significant losses have been offset by new libraries or identification of previously unlisted libraries. On the surface, Australian health LIS appear to have fared better than their US counterparts. In 2009 Thibodeau and Funk reported that approximately 44.0% of hospitals had some level of onsite library service in 1989, compared with between 33.5% and 29.1% of hospitals in 2005/06.

Not all health LIS may have been identified in the course of this project but the assumption is that this number was small. The other group not well identified by this study are health LIS that both opened and closed between 2002 and 2014 or those unidentified in the 2002 study that subsequently closed before the 2014 Census.

Calculating the size of the health LIS workforce

Up until now there has been no definite data on the size of the health LIS workforce. Previous estimates (C. Hamill, personal communication, April 1, 2011) have been put at between 800 and 1,300 health librarians. The Census revealed that, as of 1st October 2014, the health LIS represented by 206 Census respondents offered paid employment to at least 788 people in 628.2 FTE positions. Put another way, a minimum of 480 people occupied 402 FTE health librarian positions, 183 people occupied 136 FTE library technician positions and 125 people occupied 90 full-time non-LIS qualified jobs. Health librarians made up approximately two-thirds of the health library workforce among the 206 respondents, library technicians just over one-fifth and non-LIS qualified staff the remainder. The workforce data provided by the 206 respondents was equivalent to 63 percent of the 328 health LIS identified in the course of this study. Extrapolating these figures to 100 percent would put workforce figures at around 760 health librarians, 290 library technicians and 200 non-LIS qualified staff employed in the sector, a total of 1,250. While the health LIS workforce is small, it is not the smallest among registered and unregistered health professionals (see Appendix 6). Secondly, as an extremely crude measure, taking the number of registered health practitioners in Australia reported in 2014 as 637,218

(Australian Health Professional Regulation Authority, 2014), this equated to 1 health librarian for approximately every 838 registered health practitioners.

As reported in *Future of the Library and Information Science Profession: Library and Information Professionals* (ALIA 2014), employment in the library sector has been relatively static over the last ten years and sits at approximately 25,000 librarians, library technicians and library assistants. This figure does not include information professionals working outside libraries or employees from other disciplines who help run libraries. Based on these figures, health librarians and library technicians accounted for just over 2.5 percent of the total library workforce.

Staff vacancies and movement in and out of the profession

Almost a quarter of all census respondents reported that their health LIS had staff vacancies. These vacancies equated to almost 10 percent (60.3 FTE) of the total number of FTE positions (626.2 FTE) found across all 206 Australian health LIS that supplied workforce data. This rate rose to over 10 percent when specifically examining vacancies for health librarian positions.

In November 2014 Australia's job vacancy rate – the number of vacancies as a percentage of the labour force – rose to 1.21 percent (Jericho 2015). This makes the almost 10 percent vacancy rate of health LIS professionals seem very high.

Only 66% of affected respondents went on to detail the reasons for the vacancies so caution must be exercised when trying to tease out what might have been happening. Encouragingly, recruitment was underway in 40 percent of cases, which equated to approximately 16 FTE. On the flip side 29 per cent of vacancies were as a result of staff freezes and an even smaller percentage due to the unsuitability of applicants.

Related to this is the movement of LIS professionals in and out of the health LIS sector. At the time of the Census 40 new LIS qualified graduates (defined as having qualified within the last 5 years) had entered the health LIS sector but 70 LIS qualified professionals were eligible to retire within the next 5 years (assuming they retired at age 65). This was a net deficit of 30 professionals – and presumably experienced ones. Of course, not all professionals will necessarily retire at aged 65 but an ageing, female–dominant workforce presents particular challenges (Franks 2012). These figures correlate with ABS Labour Survey and Department of Employment Trend Data for 2013, as reported by ALIA (2015), that revealed that LIS workers within Australia, were "significantly older" (p 12) than all occupations, having a median age between six and 10 years higher than the median age for all workers. In addition, "over a five year period, there were some 23% fewer Librarian positions in the workforce but the unemployment level for Librarians was below average

compared with other occupations, which could reflect the rate of worker retirement for the sector" (p 13).

Such a high vacancy rate for health LIS positions raises a flag about the ease with which positions can be filled within the sector and the complicated tensions between job freezes, retirements outstripping new entries to the profession and the suitability of applicants to fill available positions.

General features of the health LIS sector

Overall many of the characteristics revealed about the health LIS sector by the Census support the findings of the neXus1 (Hallam 2008) and neXus2 (Hallam 2009) studies, namely, that the workforce was largely female, the largest concentration of health LIS (76 percent) were located on the eastern seaboard of Australia, more than 70 percent were located in a capital city, and around 60 percent operated in the government sector.

Given the fiscal constraints of governments across Australia, it was heartening that health LIS numbers remained relatively consistent between 2002 and 2014. However, a number of Census respondents commented upon the inadequacy of their operating budgets and the negative impacts of decreased physical space (see Appendix 5).

Much has been written about the continued evolution of the role of health librarians and libraries. For example, in a report of the symposium, "The Library as Place: Building and Revitalizing Health Sciences Libraries in the Digital Age", the authors noted:

"The ongoing conversion from print to electronic resources affords librarians the opportunity to create state-of-the-art flexible collaborative spaces, areas for individual study, archival repositories, and information technology help desks in the library. As librarians evolve to embrace new roles and services, they assume more complex responsibilities. In-depth knowledge of electronic licensing agreements, close alignment with the institutional mission, information technology infrastructure, informatics, information literacy, e-science, metadata creation, and open access are some of the areas in which librarians can play a proactive role." (Lynn, FitzSimmons and Robinson 2011 p 86-7.)

The results of the services section of the Census indicate that Australian health LIS continue to provide relatively traditional library services, however, bias may have been introduced into these results as a result of offering respondents a set of predefined services to choose from which may have been incomplete or dated despite best efforts. The opportunity to comment on services not listed was provided and, as documented in the results section of this report, those proffered should be considered for inclusion in future censuses. It is also important to remember that these questions did not ascertain *how much* time health LIS spent providing or managing these services, only *how many* libraries provided these services.

There is a significant difference. As future censuses are conducted, this set of questions may have the potential to reveal the more significant shifts in the types of services health LIS are delivering.

One of the questions in the *Census* invited health LIS to specify the types of organisations they served and allowed respondents to select more than one type. While this allowed observation of the wide range of organisations health libraries serviced, it didn't allow for the categorisation of the libraries themselves. It would have been useful to ask respondents to specify the primary industry of their parent organisation with a limit of one selection only. Such a question would have allowed respondents to be readily categorised as hospital, university or educational institution, government agency, non–government community organisation, professional college, etc., and would have enabled refined analysis of sub–categories and comparison of sub–categories to be undertaken.

In the absence of such data a *manual* analysis of the active health LIS identified in the course of the project was undertaken and revealed that hospital libraries still dominate with approximately 43% making up the sector as compared to 51% who *serve* hospitals (Table 7). University and other educational institutional libraries accounted for around 17 percent, non–government community health organisation libraries 14 percent, government libraries 9 percent, professional college libraries 3 percent and libraries that did not fit into any of these options 13 percent. A very small number (1 percent) were from the public library sector.

Directory of Australian Health Library and Information Services

A stated secondary outcome of the Census project was the development of an online directory of Australian LIS. The submission of information to the directory was much lower than anticipated and a number of factors may have contributed to this. Entering directory data was the final step in completing the Census by which time census fatigue may have set in or it may not have been that evident to respondents that filing directory data was the final step and, therefore, they quit the Census tool early. It may also have been that respondents actively chose not to provide their data given submission was not mandatory. Nevertheless, in the course of the project, a Microsoft Excel spreadsheet was created as a means of identifying and tracking all Australian health LIS invited to participate in the Census and this details all 328 health LIS identified in the course of the project.

One of the recommendations of this project would be to examine the feasibility of uploading the data from the Excel spreadsheet into the Census directory. However, consideration must be given to the many varying ways in which health LIS presented (as single entities, as multi-branched services, etc) and the way in which the Census database is configured as it does not easily allow the unique data of every NUC symbol to be linked to a single Census

response. During the course of the project maintaining the spreadsheet was the most practical solution.

Self-described health librarians

Fifteen responses were received to the Census of self-described health librarians. There is no way to know what percentage of eligible respondents this equates to and the very small number of responses makes it difficult to present conclusive statements about this cohort. Therefore, this should be treated as more of an exploratory investigation. The potential strength of this study will be as future censuses are undertaken and changes in the size and makeup of this cohort are charted.

All 15 respondents were female of which 13 were qualified librarians and 2 held both librarian and technician qualifications. Other than one person who worked overseas, respondents worked in all States of Australia except Tasmania and the two Territories. Ten (10) worked in capital cities and 4 in regional towns or cities. Their employment situation varied but the most common was the fixed term contract. Well over half worked in the public sector. All except the person working overseas worked in worked in health information roles.

Much has been made of the transferability of LIS skills and the potential growth of the "informationist" or "information specialist in context" (Davidoff and Florance 2000, Giuse, Sathe and Jerome 2006, Rankin, Grefsheim and Canto 2008, Federer 2014). The informationist model expands the clinical librarian model to include evidence–intensive domains within research. Within Australia there has been anecdotal evidence of experienced librarians joining research teams so, the fact that almost half of the respondents worked within research units or the like, appears to support this. It will be of considerable interest if future censuses could expose growth in this area.

The project team were aware of qualified health librarians working outside of the traditional library setting who did not participate in the Census. It may be worthwhile collecting their views to determine the factors that played a part in their non-participation and whether it was because they no longer described themselves as health librarians, because they did not know about the Census study or because of some other factor.

Census response rate

The response rate to the Census of Australian health libraries was encouragingly high. It drew 219 responses from 216 unique respondents, these 219 responses representing 267 NUC symbols or other form of unique identifier. This equated to an 81 percent response rate. In addition, 88 percent of those 219 responses answered 90 percent or more of all

questions posed in the Census. This denoted a high level of buy-in from the sector and indicates an awareness of the importance of collecting such information.

On the other hand, conducting the Census of self-described health librarians was a venture into completely uncharted territory and while the response rate was only 15, it was equally encouraging to have received this number.

Recommendations

The report concludes with 5 recommendations:

- 1. That the sector carry out a census of the Australian health LIS sector every 3-5 years. While this census project came under the auspices of the Anne Harrison Award it is assumed future censuses will be managed and sponsored by ALIA HLA.
- 2. To address the high number of vacant positions within the sector and the anticipated net loss of health LIS professionals as a result of retirement, ALIA HLA should continue to progress its campaign of improved education and training for health LIS professionals. This, potentially, will attract more professionals to the sector as well as ensure sufficient numbers of professionals are adequately trained as they move into and around the sector. In addition, the sector must continue to market the value of health LIS to library decision makers in an effort to minimise job redundancies.
- 3. All the stated aims of this project have been met with the exception of the development of a Web based reporting system and fully functioning online directory of Australian health LIS. It is recommended that ALIA HLA review how both of these functions can be further progressed. Furthermore, given the directory data compiled during the Census is relatively up to date, priority should be given by HLA to constructing an online directory of Australian health LIS. An excellent model is the UK's Health Library and Information Services Directory (http://www.hlisd.org/index.aspx).
- 4. That the results of the Census be disseminated widely through appropriate national and international publications and that the results of the study be freely accessible from the ALIA HLA web site.
- 5. That HLA consider utilising the Census data to commission an update of the 2013 SGS Economics report *The Community Returns Generated by Australian Health Libraries*' (SGS Economics and Planning 2013). An updated study such as this, reinforced by the Census data would be a powerful promotional tool for health libraries at national and local levels.

The Australian health LIS sector is to be congratulated for its high level of participation in this most important research.

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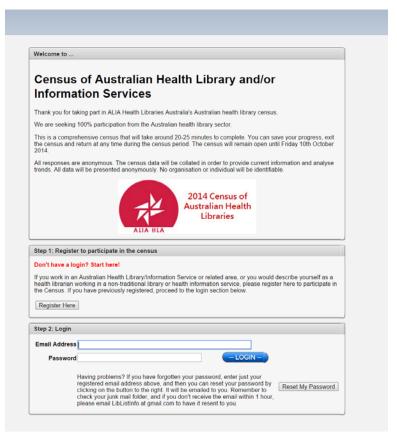
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APPENDICES

APPENDIX 1: Health Library Survey



Before you start...

Thank you for participating in the Cereus of Australian Health Libraries.

This cessus is enabled through the Anne Harrison Award and supported by Australian Library and Information Association (ALIA) Health Libraries Australia (HLA).

It seeks to accurately measure

of Australian Interaction Information services (LISs)

arriage of key characteristics.

For hose participating in the census as "Individuals working outside the traditional library softing", please continue by clicking the Register button.

LIBRARIES/INFORMATION SERVICES, PLEASE NOTE THE FOLLOWING IMPORTANT INFORMATION before leaving this page...

Please determine the scope of your census submission before registering Organisational structures can be very complex. Libraries can operate as: stand-aione entities; as a group of libraries that are tightly locasely affiliated by way of their parent organisation's structure; or, in a hour and spoke models that inclusivable and the information on each health LIS or expellation for each health LIS.

Either way, we require that the data of each health LIS be submitted ONCE only, either as stand-alone data reflecting a group of associated health LISs.

If you have any questions about this census please contact Melanie Kammermana aushealthibcensus@gmail.com.

Problems getting started? Contact your Service Rep for assistance, or email <u>LibList Info@manil.com</u>

Grant Consent & Start This Survey

By clicking this button you grant consent for your data to be used (in an aggregated, non-identifiable manner) to safesly the following primary eims of this project.

1. conduct a census of Australian health libraries and self-described health Extraines working in settings other than libraries.

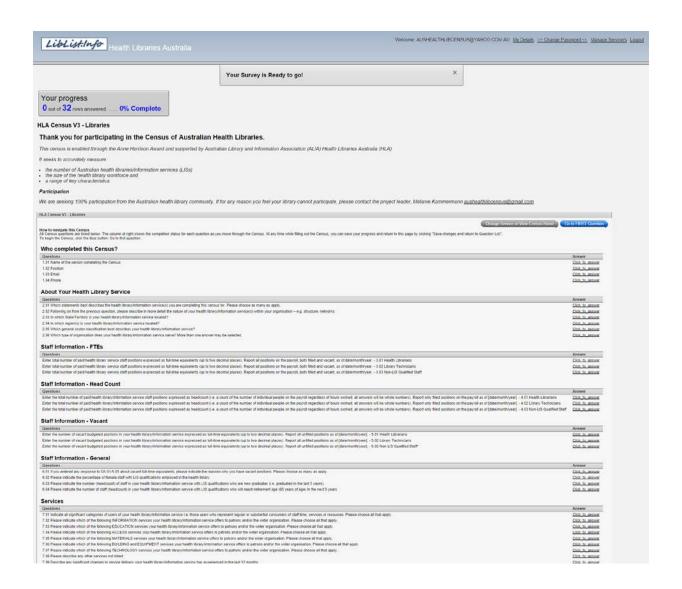
2. report public on the data collection and seporting system for both current and future use.

A secondary outcome will be the development of an online directory of Australian health birary and information services - should you wish to, you can opt out of this service at the "Library or Information Service Details" page.

Your personal details will not be recorded with the answers, just a system generated ID, and this will be all that appears in the data to be analysed.

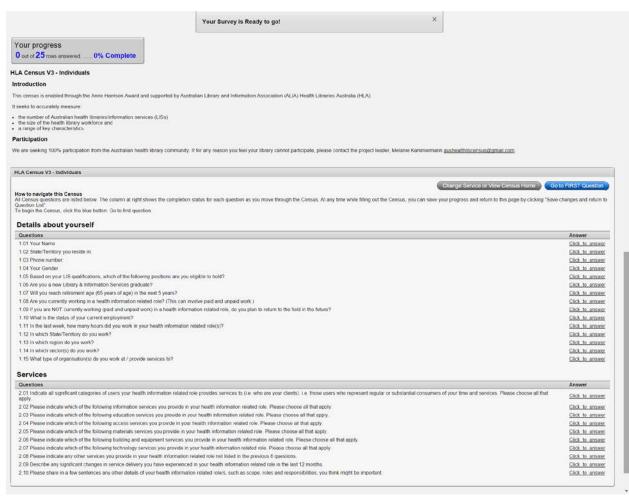
This infusitely research reject is enabled through the Anne Harrison Award with the support of the Australian Library and information Association Health Libraries Australia. If you have any questions or concerns regarding this project please contact for project leader, Melanie Kammermann at aushealthibbenius.siggmail.com

of the convenor of ALIA Health Libraries Australia. Ann Ritchie at ann rtche@barworrhealth.org su

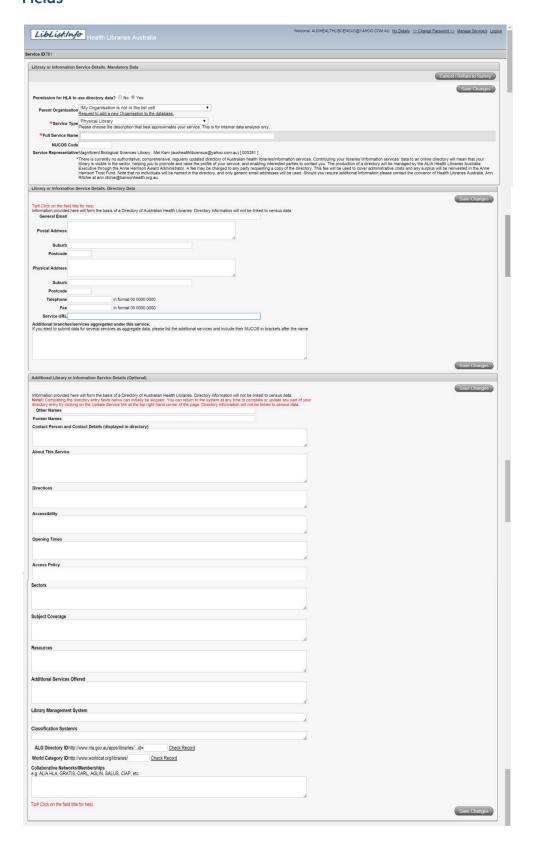


APPENDIX 2: Self-Described Health Librarians Working Outside the Traditional Library Setting Survey





APPENDIX 3: Directory of Australian Health Library and Information Services Data Fields



APPENDIX 4: Health Library Survey Comments

Names of health LIS and organisations have been removed from the comments in order to provide anonymity.

	Q2.01 Comments – Statements that describe the health library/information service(s) that completed the census $(n=38)$
1	Academic Library
2	All expenditure is approved by the Business Manager. The Library Manager does not have an expenditure delegation. The Hospital Library provides service to the [deleted] Network of the [deleted] Local Health District. The sites covered are [deleted] and their various community health services. The Library Manager also has professional responsibility for the [deleted] Network which includes [deleted] and [deleted] sites. Day to day service is provided by a Library Assistant based at the [deleted] Hospital Library which does not have a NUCOS code. All professional services are provided from [deleted].
3	Answers 1 and 3 both apply here. As the manager of a 1-person library, I have total control over service direction and budget allocation and have decision making responsibilities. I doubt, however, that the Library would be considered a department in its own right in the context of the broader organisational structure
4	Combination of point 3 and as an embedded librarian responsible for environmental scanning, creating alerts, obtaining ILLs, purchasing occasional items, loans, literature searches, maintenance of collection
5	Health Resources and services at a University library
6	Health Sciences is part of the Faculty of Health, Engineering and Science, [deleted] University. Health related Schools within the Faculty are: Exercise & Health Sciences, Medical Sciences, Nursing & Midwifery and Speech Pathology within Psychology & Social Sciences.
7	Independent Information Professional
8	Internal services in research, literature searching, database management, subscription & membership management and document delivery offered with additional duties in editing, proof-reading and copyright permissions. Budget controlled by line-manager and CEO.
9	[deleted] delivers a twofold service: To its departmental division, ie [deleted], it delivers a tailored specialist biomedical information service. To the [deleted] and associated portfolio agencies, [deleted] is taking over library services formerly delivered by the departmental library, which is now closed.
10	Joint library serving hospital & [deleted] Health staff and [deleted] University staff in [deleted].
11	[deleted] Hospital is part of [deleted] Local Health District but currently sits independently from the other 5 libraries throughout the district.
12	Manage subscriptions and client relationships with [deleted] customers

Q2.01 Comments - Statements that describe the health library/information service(s) that completed the census (n=38) CONTINUED

- 13 Manager reports to Client Service Manager. One person library with occasional volunteer help. Estimated to be the only [deleted] specialist Library in the Southern Hemisphere (possibly the world). Maintains retrospective and current information in book, journal, audio/visual, current information file formats; scans and forwards daily alerts to interested parties nationally and internationally- currently via email, shortly via Presto ,on the Web.
- 14 | Part of [deleted] for use by members and staff and now also part of the Health Education and Research Centre (HERC) supporting students and staff (newly recreated to serve this joint function - finer details tba)
- 15 Provides an information service that supports the teaching and research of the School of Health Sciences in the Higher Education division and the health courses taught in the Vocational Education (TAFE) division.
- 16 | Service for members of the Association
- 17 Special library for architectural, engineeering land management, traffic, public health and community development information for local government. Has a small responsibility in public health area and health standards supply.
- 18 The Amalgamated Library provides services to two hospitals [deleted] Hospital and [deleted]
- 19 The Biosciences Librarian is responsible for services to the students, and teaching and research academics in two faculties: [deleted]
- 20 | The [deleted] Branch supports teaching, learning and research in areas of art, design and architecture business and economics

arts information technology

- health sciences, psychology and social work.
- 21 The health library / information service provides a specialised information service within a larger organisation but functions as a department in its own right, with a manager who has service direction, budget holding and decision making responsibilities.
- 22 The health library / information service provides a specialised service within a larger organisation and while involved in service direction does not have total budget holding and decision making responsibilities.
- 23 | The Health library service is a small part of the full library services provided within the University library.
- 24 The health library/information service provided via the State Library of [deleted] is through: large range of reference books on various medical or health issues (from basic level to some academic and technical; access to several thousand medical journals (consumer level to academic and professional) - hardcopy and/or online; a subject librarian specialising in health information; an email, and telephone enquiry service.

Q2.01 Comments - Statements that describe the health library/information service(s) that completed the census (n=38) CONTINUED 25 The information service operates within a larger organisation providing specialised health support as well as other disciplines 26 The [deleted] is made up of four physical libraries – i.e. [deleted] 27 The Library is a joint service. The Library provides service to Hospital staff and students, as well as University Medical Students and staff 28 The library is for members only, information relevant to arthritis, osteoporosis and chronic condition management 29 The library provides information service within a small NGO. 30 The library works with two other libraries to provide statewide library/information services 31 The Medical Library supports Health & Allied Health professionals working or studying in the Region to meet their information resource requirements. Physically located on a regional public hospital and aged care accommodation site with a University Rural Medical and Nursing school also onsite. 32 The specialised health component relates to the journals and texts made available to professional staff. The largest part of the library service is as educational support providing materials (books, kits) to assist in early intervention literacy programs 33 The [deleted] is part of the Shared Service Provider (SSP) which operates service across the [deleted] State Government. [deleted] is the sole provider of library services to [deleted] Public Service staff and provides a range of relevant information resources, services and advice. [deleted] sits under the Department of [deleted], but offers services to all [deleted] Government Departments and selected statutory authorities (eg [deleted]). The Manager, [deleted] leads 3 teams of staff: Collections, Service Delivery and Electronic Resources. Health is one major area [deleted] supports with library services. There is a physical library - but the library staff do not have a workstation within it. 34 The Clearinghouse hardcopy collection is located around the walls of a small meeting room that opens up to be part of a larger meeting area. An increasing proportion of the collection is online only - so that the online catalogue is more comprehensive for browsing purposes than the physical shelves. This is an independent library within the [deleted] Health Library Network. This network of (mainly hospital) libraries collaborate for mutual gain. 36 University Library spread across 4 campuses 37 We're also a state-wide service. We are a Science library providing specialised information within a larger organisation and does function as a department in its own right.

	2.06 Comments - The type of organisations health library/information services serve
	(n=54)
1	All types of organisations are welcome to use the Library service and do. Through Gratis
<u>'</u>	we actually 'serve' many hospitals etc.
2	Within the hospital environment we cater to all sorts of departments (surgery, nursing,
	admin, etc.)
	The library serves the [delete] Local Health District. It also provides services to students
3	of the University of [delete] and University of [delete] on clinical placement at any of the
	[delete] facilities.
4	Physical Rehabilitation
5	RTO & Industrial Relations – relating to nurses in the workplace
6	Independant (non-commercial, non-government), self-funderd Publisher, and Guideline developer.
7	Child Health
8	We also support medical and nursing students placed within the [delete]
	Within the University and affiliated research institutes, this library service serves
9	academic practitioners in hospitals, dentistry, primary care, biotech R&D, veterinary,
	mental health and public health.
10	Women's Health
11	Mental Health Services statewide not necessarily associated with a hospital
12	We don't serve the whole hospital, only the staff of our own Department [delete].
13	We serve a local health district which consists of all groups of health professionals and
	many hospitals.
14	Coomunity care, aged Care and disability services including respite care and dementia
	care including indigenous and rural and remote services
15	As a teaching hospital tertiary students on placement or rotation from affiliated
	institutions of health education also use the library.
16	We also provide service to students on placement. Most of these students are channeled
	through the [delete] University Centre for Rural Health.
17	College providing training in addition to servicing Fellows.
18	Individual members (from the industries selected above plus others) & staff are our main
10	stakeholders, in addition to publishers, distributors, authors & researchers.
19	Primary and High schools, general public, counselling clients Disability sector
20	Disability sector Correctional Services, Hemaless Services, Schools
21	Correctional Services, Homeless Services, Schools,
22	Forensic Medicine, medico-legal, donor tissue bank and affiliations to Coroners Court
23	and Department of Justice, Vic. Medical device company
23	Not for profit, specialist service for counsellors, therapists and mediators in the couple
24	and family relationships sector
	medical and nursing students from universities who are temporarily on placement in the
25	Hospital
26	We serve hospitals thru the Gratisnet library network.
	The Serve mospitals and the diddished history network.

	2.06 Comments - The type of organisations health library/information services serve
	(n=54) CONTINUED
2.7	Hospital service is through agreement. Services include: document delivery, reference,
27	research and physical use of building.
28	general public
29	Disability sector specifically allied health professionals
30	Child Welfare, child Abuse, Juvenile Justice, Drug and Alcohol
31	I'm not sure how to answer this with the tick boxes. We are funded by the [delete] Department of Health to provide an alcohol and other drugs (AOD) specific library. Our target audience is those who work and/or study in the AOD sector, however members are also researchers, GPs, other roles within health and welfare roles at both a community health and public health level.
32	[delete] is a private tertiary institution
33	Part of the role of the Library is to provide service to [delete] Mental Health located on the [delete] site.
34	Health promotion
	Population health – women's health
35	[delete] is a wholly federally funded organisation that provides education, guidance, information and advice to both health professionals and consumers on the choices around medicines and pathology. We enable people to make the best decisions about
	medicines and other medical choices to achieve better health and economic outcomes.
36	Students from the [delete] Rural Medical School [delete] campus are active library users as the collection is colocated in the School's building.
37	Our main focus is providing information on mental health services
38	University presence is a University Department of Rural Health. This is an AREA library, also serving a range of smaller rural health services within the LHD. Other users include the RFDS (Royal Flying Doctor Service) and [delete] Hospital (a public hospital managed by Catholic HealthCare).
39	We are not a Research Institute, but our staff undertake research in their specialty fields and are aligned with the University of [delete]. Staff also lecture in the School of Pathology and Laboratory Medicine [delete].
40	Family Planning Victoria is a specialised health service, focussing on sexual and reproductive health care, education and advocacy
41	Disability sector organisations
42	we are involved / aligned with numerous organisations / research bodies as part of our Life Sciences Department ([delete], [delete] etc)
43	Government agency
44	Anyone working in the Drug & Alcohol workforce in [delete]. Be that in the health sector, Corrections, NGOs, the welfare sector, edcucation etc.
45	Clients include hospital staff, students on placement, staff of associated research facilities
46	The library focuses on diabetes management.
47	Scientific and analytical laboratory – Government
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	2.06 Comments - The type of organisations health library/information services serve (n=54) CONTINUED	
48	We primarily serve the University, but also have agreements with local Health	
40	Department libraries.	
49	subacute care	
49	ambulatory care	
	We primarily service families with deaf children but also integrate them in programs that	
50	are open to the local community eg kindergarten. I think we have a strong education	
	component.	
51	Scientific Resarchers, medical researcher, nurses.	
52	Research Centre	
53	We don't serve we work in partnership and build capabilities	
	There are a number of Research Institutes and Centres which are aligned with the	
54	University which we also serve in various capacities. e.g. [delete], [delete], [delete],	
	[delete], [delete] etc.	

	Q.3.01-3.03 Comments - Number of Staff expressed	QUESTION
	as full-time equivalents (FTEs) (n=69)	
1	0.5 funded by Pathology	3.01 Health Librarians
2	0.8	3.01 Health Librarians
3	1 day a week	3.01 Health Librarians
4	1.0 FTE	3.01 Health Librarians
5	12 hours per week	3.01 Health Librarians
6	2 days a week	3.01 Health Librarians
7	25 hrs per week	3.01 Health Librarians
8	2hr/d M-F	3.01 Health Librarians
9	34 hours per week	3.01 Health Librarians
10	5 staff on 3 campuses	3.01 Health Librarians
11	6FT+2 PT	3.01 Health Librarians
12	Been on contract for over 10 years	3.01 Health Librarians
13	Classified as 'Librarian '	3.01 Health Librarians
14	Employed as casual due to her preference – works regular hours each week	3.01 Health Librarians
15	full time	3.01 Health Librarians
16	Hard to calculate as staff across the Library contribute to this service. This number reflect Subject based	3.01 Health Librarians
	librarians and falls across two teams and have other	
	subject responsibilities	
17	I am employed on a contract. My employment is	3.01 Health Librarians
	dependent upon the continuance of an MOU between	
	the Hospital and University	
18	I am the only library employee and I am a teacher-	3.01 Health Librarians
	librarian	

	Q.3.01-3.03 Comments - Number of Staff expressed	QUESTION
	as full-time equivalents (FTEs) (n=69) CONTINUED	
19	I have only included the Faculty of Health team – there	3.01 Health Librarians
	are many more librarians, library techs and non-LIS	
	qualified staff employed in other divisions in the library	
20	I library manager=0.2; Research Librarian 0.6	3.01 Health Librarians
21	Job-share position	3.01 Health Librarians
22	Liaison Librarians and Library Advisers	3.01 Health Librarians
23	Liason for Faculty of Health	3.01 Health Librarians
24	Library Cadet is a 2 year contract	3.01 Health Librarians
25	Library Manager is 1.0. Librarian position 0.6 has been	3.01 Health Librarians
	approved but not filled. The 0.6 is currently filled by an	
	administrative person on contract	
26	Part time librarian currently on extended leave, casual	3.01 Health Librarians
	librarian backfilling on contract	
27	This covers Science, Medicine and Health disciplines	3.01 Health Librarians
28	This is determined on the amount of time a large	3.01 Health Librarians
	number of librarians would spend on support to the	
	Health related Schools and staff.	
29	We do not have a dedicated Health/Medical Librarian.	3.01 Health Librarians
30	Working 3 days a week	3.01 Health Librarians
31	2 days a week	3.02 Library Technicians
32	2 L/T 1 ALT	3.02 Library Technicians
33	As above.	3.02 Library Technicians
34	Been on contract for over 10 years	3.02 Library Technicians
35	Casuals for evening and weekend work	3.02 Library Technicians
36	Employed as casual due to her preference – works	3.02 Library Technicians
	regular hours each week	
37	HEW 4	3.02 Library Technicians
38	I LT + 1 volunteer LT	3.02 Library Technicians
39	Job-share position	3.02 Library Technicians
40	LTs serve all Schools in University	3.02 Library Technicians
41	None	3.02 Library Technicians
42	None of the Library technicians are dedicated to Health,	3.02 Library Technicians
	they work across disciplines.	
43	casuals for evening and weekend work	3.02 Library Technicians
44	part time	3.02 Library Technicians
45	Permanent Part Time	3.02 Library Technicians
46	Recently lost 1 FTE	3.02 Library Technicians
47	Shared support staff	3.02 Library Technicians
48	This covers Science, Medicine and Health disciplines	3.02 Library Technicians
49	vacant	3.02 Library Technicians
50	Was 1.0 FTE but have agreed to fill at 0.6 after	3.02 Library Technicians
	retirement of LibTech in July.	

	Q.3.01-3.03 Comments - Number of Staff expressed	QUESTION
	as full-time equivalents (FTEs) (n=69) CONTINUED	
51	0.1 FTE	3.03 Non-LIS Qualified Staff
52	10 hours per week	3.03 Non-LIS Qualified Staff
53	6 x casual student library assistants	3.03 Non-LIS Qualified Staff
54	Academic Skills Advisers	3.03 Non-LIS Qualified Staff
55	Admin Assist	3.03 Non-LIS Qualified Staff
56	Admin Assistant has been on maternity leave 1st Mar	3.03 Non-LIS Qualified Staff
	2014 - late Feb 2015, and not replaced during that	
	time period.	
57	approx figures	3.03 Non-LIS Qualified Staff
58	Certificate III Trainee - annual appointment	3.03 Non-LIS Qualified Staff
59	Currently filling the 0.6 Librarian position	3.03 Non-LIS Qualified Staff
60	Estimate	3.03 Non-LIS Qualified Staff
61	HEW 3	3.03 Non-LIS Qualified Staff
62	Officer responsible has many other duties to	3.03 Non-LIS Qualified Staff
	performed.	
63	On long term sick leave	3.03 Non-LIS Qualified Staff
64	Only volunteers	3.03 Non-LIS Qualified Staff
65	Shared support staff	3.03 Non-LIS Qualified Staff
66	Support services such as IT, cataloging, etc are	3.03 Non-LIS Qualified Staff
	centralised; staff numbers cannot be easily	
	extrapolated	
67	Temporary Contract – IT Professional	3.03 Non-LIS Qualified Staff
68	These staff are in different profession roles such as	3.03 Non-LIS Qualified Staff
	Learning Advisers and ICT Literacy Specialists	
69	Trainee	3.03 Non-LIS Qualified Staff

	Q.4.01-4.03 Comments - Number of Staff expressed as	QUESTION
	headcount (n=28)	
1	0.8 (32 hours per week)	4.01 Health Librarians
2	Funded by NSW Health grant	4.01 Health Librarians
3	Liaison Librarians and Library Advisers	4.01 Health Librarians
4	Liason to Faculty of Health	4.01 Health Librarians
5	Library Manager	4.01 Health Librarians
6	Manager	4.01 Health Librarians
7	Number of casuals varies	4.01 Health Librarians
8	Officially casual but in reality treated Permanent Part-	4.01 Health Librarians
	Time	
9	One full time and one casual librarian position	4.01 Health Librarians

	Q.4.01-4.03 Comments - Number of Staff expressed as	QUESTION
	headcount (n=28) CONTINUED	
10	Only one librarian has the [delete] Faculty as part of their	4.01 Health Librarians
	role, so the other librarians aren't Health Librarians – yet	
	the only librarian option for me to select is Health	
	Librarians	
11	part-time fixed term	4.01 Health Librarians
12	This is only counting staff who would directly work with	4.01 Health Librarians
	Health Schools and staff - it does not include our	
	circulation or collection services staff, or management,	
	who would indirectly provide services.	
13	This number does not include other library staff who	4.01 Health Librarians
	contribute to this service	
14	With support from a collections and Systems Team,	4.01 Health Librarians
	however these two staff service 4 Departments in total	
15	2 days a week (16 hrs)	4.02 Library Technicians
16	3 L/T 1 ALT	4.02 Library Technicians
17	Assistant	4.02 Library Technicians
18	For evening and weekend work during semesters	4.02 Library Technicians
19	None of the Library Technicians are dedicated to Health	4.02 Library Technicians
20	Officially casual but in reality treated Permanent Part-	4.02 Library Technicians
	Time	
21	With support from a collections and Systems Team,	4.02 Library Technicians
	however these two staff service 4 Departments in total	
22	Academic Skills Advisers	4.03 Non-LIS Qualified Staff
23	Administrative person temporary contract until approval	4.03 Non-LIS Qualified Staff
	to recruit is received	
24	On maternity leave 1st Mar 2014 until late Feb 2015	4.03 Non-LIS Qualified Staff
25	Support services such as IT, cataloging, etc are	4.03 Non-LIS Qualified Staff
	centralised; staff numbers cannot be easily extrapolated	
26	Temporary Contract – IT Professional	4.03 Non-LIS Qualified Staff
27	These are shelvers	4.03 Non-LIS Qualified Staff
28	Traniee	4.03 Non-LIS Qualified Staff

	Q.5.01 – 5.03 Comments – Number of staff vacancies	QUESTION
	expressed as full-time equivalents (FTEs) (n=4)	
1	Funds temp 0.6 fte library technician	5.01 Health Librarians
2	Librarian	5.01 Health Librarians
3	On maternity leave 1st Mar 2014 until late Feb 2015	5.03 Non-LIS Qualified Staff*
4	Support services such as IT, cataloging, etc are	5.03 Non-LIS Qualified Staff*
	centralised; staff numbers cannot be easily extrapolated	

	Q6.03 Comments – The number (headcount) of staff in health library/information services with LIS qualifications who are new graduates (i.e. graduated in the last 5 years). (n=12)
1	1 Librarian with Graduate Degree
2	1 library staff commenced as a new graduate and has been with us for 6 years now
3	1 male health librarian, 8 other female Librarians in my section dedicated to non-health disciplines
	As of Oct 2014 1 full time (permanent) and 0.6 permanent part time librarians were employed as subject librarians in the Health Sciences. As of January 2015 the 0.6 part time librarian retired. This position was replaced with a 0.5 librarian currently on 6
4	months contract. All had/have LIS qualifications.
5	Graduated years ago.
6	Library technician
7	Not yet graduated, will graduate mid year and then the number will be 1
8	Note this is only looking at subject librarians- there are a number of other staff in university library who contribute to this service
9	these answers only refer to the 2 liaison staff who are responsible for the health disciplines
10	Vacant part time position has been previously filled with new graduates.
11	We do not have dedicated staff that are Health Librarians.

12 We have no new staff for several years

	Q.6.04 Comments – The number of staff (headcount) in health library/information services with LIS qualifications who will reach retirement age (65 years of age) in the next 5 years (n=15)			
1	** intending to retire earlier though and move to part-time contract only work (at age			
	51).			
2	2 more only one year behind that cut off point.			
3	65 is not a retirement age any more!			
4	again – only refers to liaison librarians in health			
5	As at Oct 2014: 2 librarians			
	As at Jan 2015: 1 librarian			
6	Definitely 1 but could also be another staff member. 2 Possibly.			
7	I am the only qualified person working in the library. I have just turned 65 and am not			
	thinking of retiring in the near future.			
8	i don't know the exact ages of all of my staff, so between 1-3			
9	I have already I am 71			
10	In 6 years - 50%			
11	No plans for retirement!			
12	None, I'm 79 next month and not planning on retirement.			
13	The one member of staff has already reached 65 years of age			
14	Whilst neither of the two Health librarians are in that age bracket, the broader support staff are			

- Q.6.04 Comments The number of staff (headcount) in health library/information services with LIS qualifications who will reach retirement age (65 years of age) in the next 5 years (n=15) CONTINUED
- You have indicated the retirement age of 65, but Library assistant will retire in 3 years at age 60, and Librarian will retire at age 60 in 8 years
 - Q.7.01 Comments Significant categories of users of the health library/information service i.e. those users who represent regular or substantial consumers of staff time, services or resources. (n=28)
- additional category clinical educators. these are clinical staff whose primary responsibility is education of clinical students and new graduates on staff. clinical educators are significant users of the [delete] library services.
- 2 Ambulance officers
- 3 Association Members
- 4 Doctors and HCP's.
- Due to nature and location of organisation some assistance to offered to co-located but administratively separate [delete]. Also other Govt departments incl [delete]. Biggest other user category of my time is other libraries, esp due to belonging to specialist sector services such as GratisNet, ALIES etc it is a mutual service but substantive user of staff time and resources.
- 6 Editors with qualifications in medicine, pharmacy and clinical research. Some literature searches performed for Expert Group Members (external to organisation) who are physicians, medical specialists and clinical pharmacists.
- 7 Environmental health officers
- 8 Fee for service clients/subscribers I have selected to indicate members of our organisation. Anyone can access the library but only members who pay an annual subscription fee can borrow from the library
- 9 For [delete]: Wide range of scientists toxicologists, pharmaceutical chemists, virologists, biomaterials experts etc.

 For department: health policy makers, health service analysts, epidemiologists and public health managers.
- Generally patients and families use this library indirectly through the organisation's staff (therapists/mediator)
- 11 Gratisnet libraries on behalf of their users.
- 12 Health professionals
- 13 I have selected both professional college members and clinical staff as a large proportion of college members are health professionals (ie clinical staff)
- 14 | ILL requests from external libraries via Inter-Library Loan (ILL) channels
- 15 Include remotely located students in other parts of the state.
- Library membership comprises organisation staff, course participants, fee paying members from schools, disability organisations and any other interested organisation. We also get enquiries from the general public
- 17 Library staff from other organisations

	Q.7.01 Comments - Significant categories of users of the health library/information		
	service i.e. those users who represent regular or substantial consumers of staff time,		
	services or resources. (n=28) CONTINUED		
18	members and non-member volunteers are the only users		
19	Most usage takes place via email and online means – very little access to the physical		
	collection.		
20	Our Marketing Department are regular users of our Library service with regards to		
	corporate archives, eg enquiries relating to organisational history; biographical		
	information of early founders and confirmation of dates and timelines. We also serve as		
	a depository for annual reports, organisational newsletters, etc.		
21	Project staff		
22	Researchers are a small component of our client group but they do use the library.		
23	School students		
24	staff from correctional, health and homeless services		
25	Staff of Aboriginal health services, RFDS staff etc		
26	[delete]Library is the Library for the [delete] School which is located next door to the		
	[delete] library. It also provides some services for students enrolled in the [delete]		
	Institute.		
27	Teachers are a large percentage of users		

There are also a large number of Allied Health Staff – Physiotherapists, Occupational

Therapists, Speech Pathologists, Social Workers, etc.

	Q.7.08 Other services health library/information services offer to patrons and/or the wider organisation. $(n=69)$
1	"Book Trolley Project" service to hospital patients one weekly recreational reading delivered to bedside (with hospital volunteer assistance)
	participation in health & well being promotional activities as a promotion for library services
2	"Event Management" for medical education and consumer education. The library is responsible for coordinating the Grand Rounds lecture-style teaching program at the [delete] Hospital. The library is also responsible for coordinating a public lecture series targeted towards the general community and health consumers.
3	* Book reviews & promotion for publishers/authors, published in monthly magazine * Discount books for members (in development) * Direct member access to CINAHL database * Merchandise, uniform & other paraphernalia archive * ISBN/ISSN licensing * Copyright management * eBook access (in development)

Q.7.08 Other services health library/information services offer to patrons and/or the wider organisation. (n=69) CONTINUED

- 4 1. Maintenance of in-house museum and hospital history collection;
 - 2. Maintenance development and promotion of virtual [delete] My Athens Workstations for home and ubiquitous acces;
 - 3. Maintenance and booking of in-library meeting, training and interview rooms for hospital staff;
 - 4. Desktop publishing support scanning and binding of reports and documents.
 - 5. Maintenance and promotion of campus-wide UpToDate knowledge base service.
- 5 1. Manage SPSS licences for the health service. 2. Specialised health library services offered to local university students under a service agreement (currently under renegotiation).
- 6 1. One room in the Library functions as one of the sites for hospital's telehealth service. This service is not delivered by library staff but is physically based in the library
 - 2. The library is in the process of setting up an archive area providing both a selection of older library items, mainly acquired by donation, as well as a repository of [delete] Hospital publications and documents from throughout the hospital's history.

 All documents in this area are treated as 'general access' with borrowing of items permissible.
- 7 A collection of diabetes management related magazines and information sheets are also available.
- 8 All the services were included.
- 9 An extensive toy library collection tailored to the needs of clients with disabilities.
 Allied health staff also access the toy collection
- [delete] medical students also have access to clinical information resources available at the [delete] Health Library at the [delete] Hospital ([delete]).
- as previously noted services to other libraries via formal and informal networks almost as significant a user category as inhouse
- Authentication management we use the CHC Athens authentication system, and our own Exproxy system, and this demands quite a lot of support eg registration process, password management

Linking to give seamless access to electronic resources (is this in the Technical category?)

Orientations - would fit into the Access category.

Research consultancy services to manage research information/data/publications etc throughout the research lifecycle – not sure where this service would fit as it's more than just the 'research consultation' role that a reference librarian would normally undertake so it's more than just an 'information service' or a 'research support service' (this is the newest position we've created with the Research Directorate, but not yet filled). Research data management will also be part of the role (but we don't do that yet).

Books purchases for departments

District wide purchase of license for EndNote. Offer training both in Library and Outreach.

Q.7.08 Other services health library/information services offer to patrons and/or the wider organisation. (n=69) CONTINUED 14 Borrowing and purchasing of activity resources suitable for a person with dementia Lending postal service to country and housebound members 15 Citation management includes detailed quality control and bibliographic management to international standards (RDA/AACR2). 16 Compile Staff Publications list 17 Distance education and training including information literacy to rural and remote users. Managing procurement and access of all knowledge related products for the Department as a whole (including those with purchase budgets outside the Library Service). 18 EndNote support for WHV staff Collaboration on authorship of new publications – with both author and librarian tasks working from the same EndNote library in a shared network drive. Style guide and referencing protocol work. Proofreading of draft publications Member of Information Technology Strategy working group Member of office accommodation working group Member of office accommodation working group Member of Occupational Health and Safety working group Emergency warden Lead person for [delete] Triennial Survey 2012 and 2015(captures qualitative data across all of the organisation's stakeholders, services, programs, and products) 19 Film library (currently hard-copy only). 20 From an information management perspective, intermittent involvement in whole-of-agency projects such as ISO 9001 certification, and metadata development for specific departmental projects. 21 General information/resources eg brochures from our organisation + others, access to government publications etc 22 Has been covered but we do provide a very extensive journal alert service (approx 700 ejournals)which is very popular with staff. 23 Health Technology application review Podcasts - links to websites and also podcasts on selected topics saved to CD for night duty nurses and other staff 24 Hospital audits Copyright checking Reference fixing 25 I h					
Lending postal service to country and housebound members Citation management includes detailed quality control and bibliographic management to international standards (RDA/AACR2). Compile Staff Publications list Distance education and training including information literacy to rural and remote users. Managing procurement and access of all knowledge related products for the Department as a whole (including those with purchase budgets outside the Library Service). RendNote support for WHV staff Collaboration on authorship of new publications – with both author and librarian tasks working from the same EndNote library in a shared network drive. Style guide and referencing protocol work. Proofreading of draft publications Member of Information Technology Strategy working group Member of Occupational Health and Safety working group Emergency warden Lead person for (delete) Triennial Survey 2012 and 2015(captures qualitative data across all of the organisation's stakeholders, services, programs, and products) Film library (currently hard-copy only). From an information management perspective, intermittent involvement in whole-of-agency projects such as ISO 9001 certification, and metadata development for specific departmental projects. General information/resources eg brochures from our organisation + others, access to government publications etc Has been covered but we do provide a very extensive journal alert service (approx 700 ejournals)which is very popular with staff. Health Technology application review Podcasts – links to websites and also podcasts on selected topics saved to CD for night duty nurses and other staff Hospital audits Copyright checking Reference fixing I have only recently started managing this library (8 weeks). The service is in a state of change and updating (physical and technology), which will take me the next 12 months. Everything here has been manually done with little emphasis on online services. The library here also supports mental health consumers (mental health patien					
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26 Inform and support internal projects/research					
	26	Inform and support internal projects/research			

	Q.7.08 Other services health library/information services offer to patrons and/or the				
	wider organisation. (n=69) CONTINUED				
27					
28	Justice of the Peace services- Library Manager is a JP				
29	Learning expertise and advice for students is provided by academic staff who are				
	employed by the Library and work closely with librarians.				
30	30 learning skills advisers				
31	liaison librarians are involved in curriculum teams and provide advice related to				
	developing information literacy skills				
32	library chat service, Digitising TV and Films in line with colleges screen rights license,				
	Historical Collection, support for the e-learning platform.				
33	Monitoring and managing royalties for the use of the organisation's crest.				
34	No additional services.				
35	None				
36	None that probably don't already fit into previous categories. With regard to education,				
	we have regular training program to support our clients in use of online information				
resources and databases.					
37	Organisational contact for Australian Standards.				
38	please note that the health team doesn't provide all of these services singlehandedly -				
	the library is much bigger than the health team				
39	Poster printing				
40	Proof Reading				
41	Provide wireless access to both hospital network and to [delete] University network				
	from the library not sure where to put this down!				
42	Recording of: Grand Rounds of various disciplines; Junior doctor education sessions;				
and other education and lecture sessions on an ad hoc basis. All of which are					
	available through our website.				
43	Regional reference print collections ([delete]) and numerous branch station reference				
	print collections (all 3 regions [delete])				
	Statewide electronic access to journals, databases and texts - Electronic Portal for				
	Online Clinical Help (EPOCH)				
44	Research services to support the preparation of publications, policies, submission etc				
45	Research support for systematic reviews				
46	Research Support Services 1) Customised Search Service to support grant proposals				
	and funded projects 2) Research Impact Service Reports				
47	Responsible for a considerable historical archive collection				
48 [delete] provides online resources via an Internet and Intranet site. The Internet					
	used by the [delete] facilities as well as the four branch libraries. A Document and				
Search request service is offered.					
49	Room & Equipment Booking Service for [delete] Hospital Sites				

Q.7.08 Other services health library/information services offer to patrons and/or the wider organisation. (n=69) CONTINUED

- Run an Internet resources blog, with co-authors from other libraries in the LHD.

 Currently doing research on history of the [delete] Hospital, with view to publication.

 Librarian occasionally acts as an invigilator for staff who are external students.

 4 libraries in [delete] + 1 in [delete] LHD function as a network with reciprocal loans and other services. Librarians have also negotaited a reciprocal agreement with [delete] University
- 51 Scanning
- Service for public health is a part of special library services just an accident that the present librarian is a dinosaur medical librarian
- 53 systematic review service
- the [delete] library coordinates purchase (incl price negotiation), accessioning, distribution and withdrawal of print clinical information tools in the wards. we treat these items as a distributed collection. the [delete] library also negotiates purchase and manages access to key online clinical resources not traditionally used as library resources, ie the point-of-care tools. the aim is to leverage librarians' skills in procurement and management to benefit clinical staff who have a skill deficit in these areas.
- The [delete] Library provides support to [delete] partners ([delete] Health Libraries

 Network) specifically, we support library websites for the following organisations

 [delete] [delete] [delete] [delete] [delete]

 We also provide [delete] support with SFX and EZproxy infrastructure needed to get online access set up and working.
- The Library and Learning Services Team focused on supporting Health provides workshops and consultations to students in the areas of:
 - academic skills development
 - information literacy skills development
 - ICT Literacy skills development

The team also provides advice and support regarding OERs for programs, working with the course convenors and educational designers to identify suitable resources and to create resources such as tutorials on how to research, reference and write academic assignments.

- The library provides screen casting services and advice to Hospital units for the addition of information to hospital orientation and education packages.

 The library is the only location within the hospital that provides free WiFi Internet access to all hospital staff.
- 58 The library purchases books and handles journal subscriptions for departments.
- The records and archives service to the organisation is covered by the same personnel as those staffing the library and is the primary focus (.8) of their time. The library service is currently undergoing development and is as such will hopefully be more productive and offer more services in coming months. Much of the literacy/education function is covered by the teaching staff as part of the courses offered at this time and as such as has not been counted in the previous survey quesitons

Q.7.08 Other services health library/information services offer to patrons and/or the wider organisation. (n=69) CONTINUED 60 The teacher-librarian offers a very limited service. It is a self-serve space, supported by a librarian just twice a week. The major role of the librarian is to manage resources such as picture books, kits and learning games. [delete] provides access to lending and print collections for the [delete] Hospital as well as document Delivery. Access to electronic material is via CKN (Clinical Knowledge Network) provided by the Queensland Public Health sector. 62 We also are the Australian agent for a publisher in the USA ([delete]) and provide a bookseller service for patrons and the general public (currently being re-negotiated with a book seller) 63 We also have a Print Disability Service which provides textbooks and course reading materials in accessible formats to registered students. We also have an online-chat service. 64 Also: Because we are an online-university as well... we do send out printed books to our students that are studying off campus all over in in Australia. We do not send books to our students in other countries outside Australia. However we have found that because we are subscibing to really good databases (and all students and staff can access all over the world) that there is no need to ever send our printed material 65 We also support / attend various meetings for the Quality & Advisory Board of the [delete] & [delete], providing evidence to support decision on purchasing new hospital wide services / medical equiptment where appropriate. 66 We offer information, individualised support and referral options on a range of women's health issues. A telephone health information line. Health information in a range of languages. We run the pamphlet service for the hospital, ordering, copying & distributing patient-67 information pamphlets to wards & departments.

We will be developing a consumer education portal in conjunction with the [delete]

'no' to any patient education activities but this will change soon.

Health Literacy Committee with the first meeting held next week. So I have answered

68

69 WiFi

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130)

[all responses indicating that the question was not applicable have been removed]

- 1 * Online, publicly accessibly catalogue with loan request form
 - * Direct CINAHL access for members
 - * Hiring an additional full-time qualified librarian
- 2 1. Approval to proceed with the recruitment to a long vacant position. Difficulties with the management and resources supplied by [delete], which has generated great discontent among clinical and other patrons of our library service. 2. After staff cutbacks two years ago, our organisation is in recruitment mode; new staff bring high expectations of library service provision. 3. Research is consciously being promoted within the organisation, and will grow further; this increases the demand for high level research services such as literature searching for systematic reviews.
- 3 1. Enhanced electronic linking of subscribed fulltext resources to Google & PubMed2. Book collection upload to Ebsco Discovery Service.
- 4 A half-time administrative assistant temporarily helping out for 12 months to address a huge library backlog (physical content and electronic records) went on maternity leave in Feb 2014 and was not replaced.
- 5 A plateau or even a decline in the interest for e-books.
- A renovation of the building saw the library space reduced by 75% and the print journals and books reduced by the same amount. A direction to become totally electronic with the possibility that within the next 12 months the physical library will no longer exist. As most users are geographically removed from the physical library and with a greater online presence the use of the physical library/print book collection has reduced.
- A total decline in physical materical lending. For example books, DVDs etc. Due primarily to budget constrainst and inability to purchase such pysical materials anymore.
- 8 Access finally given for our staff to access the SA Health Library (SALUS) online journals and e-books.
 - Cancellation of many journals due to cost, or lack of use.
 - I have seen a decline in the use of our books and journals, which might be attributed to us giving our registrars STATdx accounts. This gives them access STATdx from their workstations, which could mean they are accessing information online via STATdx and no longer need to use our hard copy items.
- Along with the rest of the organisation, we have relocated to a newly developed, state-of-the-art [delete] Centre. The Library is now in a much more central location.

 Our technology systems have also improved which has seen an increase in usage for our online journals. We are currently in the process of migrating from a static Intranet platform to Sharepoint which has the potential to further enhance our service delivery.
- [delete] Library has extended opening hours in the last 12 months and increased access to electronic resources such as Clincal Key and has provided increased remote access of final year students to UpToDate. [delete] Library continues to realign journal and electronic subscriptions to the learning and teaching requirements of the University.
- Appointment of Clinical Librarian to provide embedded liaison in clinical areas.

 Large expansion of electronic book and electronic journal collections.

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED [all responses indicating that the question was not applicable have been removed] 12 As previously mentioned the library is currently in a state of change (update). The library has been neglected: physical space, hardcopy collection and technology. My primary goal is to focus on all these areas and bring the library up to a standard with the other libraries in the [delete]. The library is valued by the clients who use the service. 13 Availability of medical e-books has increased and usage of these is extremely high. 14 Brand new library with 15% increase in floor space. Self loan station. Change in corporate profile from [delete] to [delete]. Restructure of presentation of 15 services to be sector-based rather than product based Change to consumer directed care 16 17 Considerable change in the planning for a merger with [delete] Library and for the closure of the [delete] Library and relocation of collections to the new [delete] Hospital and to [delete] Hospital. All of the legacy print journal collection that does not overlap is moving to [delete]. The operational planning has been extensive not only for the Library service but in demands from other areas planning their moves (for information resources to support changed models of care, organisational structures etc). Consolidation of journal subscriptions and amalgamation of overlapping site 18 subscriptions to electronice databases. Formalisation of governance structure within the Department to include recognitions of the Portfolio Roles held by Site Library Managers. Decline in number of face-to-face visits and borrowings 19 Decline in walk-in custom, therefore decline in lending of print resources, but increase in 20 the uptake of electronic resources and electronic requests for assistance. Definitely less face-to-face interaction as the library, as well as a decrease in services, 21 physically moved from amidst staff in one location to another building tacked onto the end of a long corridor. There has been a downward spiral as less services engage less clients and less clients get to even hear that a library exists. Deliberate purchasing policy for electronic resources where available over print resources. Building a stronger engagement role with the Faculties and Research Services 23 Demand for assistance in conduction Systematic Reviews,. Developing patient information online guides 24 Demolition of existing library, recent relocation and installation of shelving to less accessible physical area. Change in Section and responsibilities from Records, Knowledge Management including Library to embedded librarian for particular team. Still negotiating responsibilities. 25 | Distribution of etocs through email and subsequent supply of articles - excellent growth Downgrading of entire collection - books are almost all gone now. We still retain journals, although this is now under discussion as to the value of these and the possibility of moving to e-journals only. The library is no longer a part of any of our marketing material/strategies.

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED [all responses indicating that the question was not applicable have been removed] 27 Dropping many print journals and move to district wide electronic access to journals. Shared funding model for very expensive databases. Due to redevelopment of [delete] Hospital the Clinical Library has been moved to a demountable which has impacted on the Library Service. New Library is proposed for the New [delete] Research & Education Building currently with NSW Health for sign-off. Building is hoped to start in 2015. 29 Due to significant understaffing the library is cutting services to manage workloads. It is unable to develop appropriate services to meet best practice or the level of service required by the organisation. The library technician has vacated her position but the greatest need is for professional level staff able to support eResource management, subscription management, research and publication support, education & EBM. I have applied to abolish the Library technician position and employ two half-time professional staff at different levels, able to provide advanced practice skills. I do need more staff (about 6) but this is not an option. During the last 12 months the Library has experienced significant restructuring away from 30 branch-based services to a one-library model. Expanding the electronic journals and moving into a purpose built new library building 31 within the clinical school. 32 Exploring and introducing more research support services and opportunities Following a restructure at the end of 2013, a third of the reference staff across the [delete] were cut. The existing Department [delete] Library at [delete] was closed, the collection moved offsite and staff moved to one CBD location (a physical Library space). The original [delete] library had 7 staff. The remaining two reference staff now service four State Government Departments, with budgetary and planning assistance from two whole of [delete] Government Library managers and further assistance from collections and systems teams. 34 Funding gained for extra position to support services to [delete] (offsite). Library have taken over main responsibility for intranet and internet content. Adopted ezproxy for access to electronic materials. Moved library catalogue to shared network ([delete]). Greater focus on research support, including bibliometrics and systematic reviews. Increased involvement in supporting teaching of evidenced based practice principles, primarily in searching for information. Focus on purchasing ebooks over print and video resources to support teaching. Growth in service with onsite users. The library has expanded the use of electronic resources and this has seen an increase in online usage. The library has moved from an article finding service for members to an information literacy/research skills tips service along with more information about their workplace or institute of study library so the number of requests has reduced for this service. Members, mostly post-graduate students, have stopped returning for articles for their assignments. 37 growth of lending of activities

	Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED [all responses indicating that the question was not applicable have been removed]			
38	Have purchased a collection of ebooks on a loan system. Slow uptake but persisting. Less use of pcs provided and more use of our wireless network as people bring in their own devices.			
39	Have set up a page on the [delete] intranet – [delete] eLibrary – which is a subject guide to some hand–picked resources relevant to AT personnel and Volunteers. It includes electronic link to eJournals, print journals, eBooks, databases, clinical guidelines & protocols, evidence based practicesocial media and mobile applications, organisations and associations, and websites. Further development is planned to include a link from this page to a yet to be created blog which will include selected, indexed articles as a refinement of the Current Awareness Service.			
40	Heavily involved in the auditing/maintenance process of the Health Translation Directory (HTD)			
41	Hospital library now merging with [delete] hospital library and then [delete] hospital library in order to form new regional library service – [delete]. This process is underway and will mean the merging of some of our services with services elsewhere in [delete]. However at this stage it is too early to know the details of the new service.			
42	Implemented new library management system which has allowed growth in service delivery. Have promoted it as knowledge management tool & one stop shop to access databases, work practices etc. which has significantly improved library image and usage.			
43	Increase in data management services More electronic and less print New ongoing Library Manager appointed – previous Library Manager was in the role for over 12 years.			
44	Increase in embedded information literacy programs with academic units. Increased advice on data management and systematic review search strategies.			
45	increase in number of information literacy classes and workshops on academic integrity (i.e. referencing and endnote).			
46	Increase in research support services in citation analysis, bibliometrics, benchmarking Provision of institutional research publication repository, compliance with NHMRC & ARC open access policies			
47	Increased number of staff in organisation with different agencies brought into the organisation this calendar year, which has increased the amount of requests the library has received			
48	Increased pressure to reduce budgets and staff numbers, reduction of library floor space for building of temporary office space for decanting of staff during redevelopment of hospital – requiring intensive rationalisation of the journal collection and overall library work space.			
49	Increased work load after the loss of a 1 day a week support position.			

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED [all responses indicating that the question was not applicable have been removed] 50 Increasing reliance on the online catalogue by both staff and external users - record views increasing by 10,000 per year. One of our publication series has been listed in a [delete] Subject Guide which is driving increased traffic via the catalogue. Decreasing reliance on the hardcopy collection (available to onsite users and visitors by appointment only) The online catalogue provides better browsing of recent items than the hardcopy collection, because items are increasingly held as online only. The Librarian is visiting the physical library less and less. Reducing numbers of print serials. Increasing crossover of librarian skills into other functions of the organisation. (The Librarian skills are in constant demand - whether they're called "librarian" or not) Supervision of an information science student placement. 51 Installation of RFID 52 Interlibrary loans available for undergraduates as well as postgraduates and staff (through Article Reach); more in-house produced online instructional videos available via YouTube; More digitised streaming video services and we have run classes for academic staff on clipping online videos. Increase of Identity Management and citation impact support for research staff. Invited to attend monthly divisional meetings. Given access to Power Budget Software and given authority to build my own budget. Via Proxy software, established seamless on site acccess to all online resources. 54 | Ipad long term loan [delete] was a small team delivering specialist biomedical information services to approx. 400 medical and science professionals. Mostly digital with tiny print collection Now transitioning to deliver additional services to a further cohort of 2,500 health policy Library has been downgraded so; 56 access to holdings is restricted. No study/ready space now available No terminals available for learning in the library 57 LIS EFT cut from 2.4 to 1.4. [delete] medical student numbers and organisational EFT have increased. Loss of 1 FTE Librarian position – library manager's position abolished following voluntary 58 redundancy of former library manager. Reduction in staffing to 1 FTE Librarian and 1 0.6 part time librarian. Loss of electronic subscriptions due to budget restraints. Change in reporting chain, now nested in education services rather than corporate services (a slightly better fit). Physical relocation of desk and library with subsequent culling of a large part of the library collection.

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED [all responses indicating that the question was not applicable have been removed] Major revamp - new resources, new furniture and equipment, revamped space and all this 60 is ongoing - its very much like starting a library from scratch compared to what was previously a part of the organisation and as such much of it is still under development! Marketing library service to the national membership has always been a problem as the national body has not taken ownership of the library service. Politics between state bodies has meant there has been resistance by some of the elected council members to assist the library to promote its services within their state. In the past few months we have been able to convince national membership services staff to add highlighted article information to e-newsletter with direct email request to library. This has allowed us to make contact with more members nationally and given us an opportunity to spruik our services. This has led to an increase in members using the library service. 62 Minimal use of hard copy information and forced library culling due to up and coming library move. More embedded in other departments such as Pharmacy with audits and Governance work 63 with copyright and reference checking More systematic review support, research analysis and publication support 64 Move away from providing access to a print collection, and towards the provision of 65 eBooks. 66 move to temporary location whilst building development in progress resulting in an overall 2 year change in physical service delivery. Reduced face to face service, but steady online & phone service maintained. increasing service via online resources. 67 New Chief Librarian, and new CEU team No significant changes except a reduction in staff (VDP) and a reduction in recurrent 68 funding Now hosting a state government health library with our collection. Expanded client base 69 and extended opening hours. 70 Our health service operated as a 2 branch library under the umbrella of a government department. The hosting of the library service has since been outsourced to a non-profit organisation. Subsequently the library service was consolidated (one branch closed) and the remaining branch moved physical location to the non-profit organisation. The service still exists to service that government department, as before, but with a reduction in staffing from FTE 4.75 to 1.2. 71 Over the past three to four year there has been a significant shift in service delivery to support the research outcomes of the university. Now research is adequately supported a focus has returned to teaching and learning space, especially in the areas of curriculum transformation and the delivery of blended learning techniques. The development of digital objects to support teaching and learning outcomes is also high on UOW's strategic agenda.

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED [all responses indicating that the question was not applicable have been removed] 72 Professional (ie. non-academic) staff restructure in the University is currently taking place - see answer to Q6.01 for details. Future focus is on increased research support and highly developed teaching & learning support (following the [delete] Scholarly Literacy Strategy and Framework), and increased student spaces offering a wide variety of study options. Focus on self service for circulation and student IT services: with increased use of chat inquiry service, [delete] Library social media channels and shared services eq. [delete] central inquiry service. Provision of free WiFi – well received by students. 73 74 Rapid growth of parent organisations services Reduced budgets have caused cancellation of some serials and database subscriptions. 75 New degree programs have been added without increase to library materials budgets. With addition of more blended learning delivery units there is a decrease in face to face interaction, and an increase in online delivery of information literacy to students. There is a significant move to a policy of purchasing e-texts over print resources. Reduced face to face interaction; increased online interaction; increased literature search 76 77 Reduced face-to-face interaction, staff freeze, budget constraints, 78 reduced face-to-face/increased online interaction, staff publication database 79 Reduced services: circulation of rials ceased electronic update services reduced. Reduction in face to face but uptake of electronic resources like ebooks & streaming 80 videos. Increase in staff responsibilities due to redundancy's. 81 Refurbishment of library and assistive technology room - expansion of library 82 Relocation in first 6 months of 2014 and current undergoing a major library review. 83 Remote access to library services via OPenAthens Developement of "liaison" role across all campuses Removal of budget to inclusion in aggregated unit budget with no direct control. 84 Research office co-located with library has led to involvement with Health Technology application review and increased use of mediated searching and bibliographic management services. Some reduction in face to face interaction and increase in online/telephone interaction. Circulation statistics have remained stable over the last few years. Increased involvement in teaching Evidence Based Practice workshops, in partnership with Nursing & Midwifery Research. Role of Library Manager has been undergoing significant review and redefining over last 86 year or more. Currently the position is both Library and Records Management - 50/50 split - but appointed as one year fixed term with expectation of review. Previously role was exclusively library. Self-serve borrowing system for when the library in not staffed/unattended. 87 Shifting to greater electronic delivery eg. e-books 88 Significant reduction in material budget of around 20%

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED [all responses indicating that the question was not applicable have been removed] 90 Space is premium in a hospital. Executive requested 1/3 of the library space to be converted into two offices. These were given to the university student coordinator and to medical education. On the positive the library has become busier with students coming into the library to seek the university coordinator and registrars coming in to seek the Medical Education Officer. On the downside the library is noisier and harder for clients looking to study in quiet. 91 Staff changeover, previous librarian retired at end of April, position was not filled until August 92 Staff cuts of 2.0 EFT and budget cuts have caused cuts to non-core services, and introduction of or increased charges for some services. Face-to-face visitors continue to increase, as do ebook and ejournal downloads. Decrease in journal and book purchases for other hospital departments. 93 The content of the library was revised 12 months ago resulting in the removal of outdated material and the purchasing of more current texts. The ERC used to have quite a lot of foot traffic in the 90's and early 2000's, but recently we have not had many people physically visiting the Library. Management have decided a month ago to close the physical library in 2015 and operate a virtual library service from a smaller space. Due to the sensitive nature of our subject area, this will be a good response to the changing way the community searches for this type of information. We will redevelop our web presence as we make savings on our print collections. In the past, the librarian was also responsible for many print health promotion brochures in HIV, Hepatitis and STIs. These too are increasingly being sourced in PDF format online. 95 The Hospital has allocated funds for the Library service, including books, journals, databases, postage, inter-Library loans, stationery. The previous year there was no formal budget, although the invoices for journals [electronic and print] were paid, as were Libraries Australia and Gratisnet expenses. 96 The introduction of a systematic reviews support service. The last six months has seen the move away from branch-based librarians to distributed Faculty teams who provide services to staff, students, academics, academic title holders, hospital staff and other library users across multiple locations. Library facilities are managed centrally by Library Corporate Services. Lending and basic reference services are provided by HEW 4 staff who triage more advanced enquiries to rostered librarians from Faculty teams. The LHD greatly restricted social media use for a number of years. In the last 12 months, the policy has been greatly relaxed, with the LHD embracing Facebook, Twitter, Internet Bulletin Boards, LinkedIn etc. This provides significantly more opportunities for the library service. Loss of an onsite [delete] University presence has significantly reduced services available through the University Health Service agreement. [delete] University (onsite) has also tightened funding. This has been partially compensated for by an increased [delete] University presence at the [delete] campus.

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED

[all responses indicating that the question was not applicable have been removed]

- The library did lose 2.0 FTE librarian positions due to voluntary redundancies unable to be filled because of wider governmental staffing freezes.
 - The library did have 2 physical locations but in the last 12 months has closed its location on the mental health hospital campus. This was by mutual decision with the organisation based on changing use of the library and changing use of the mental health hospital campus. Despite these changes in staffing and space the library has maintained its activity levels across its core services.
- The library has been approached to be involved in several systematic reviews, mostly related to search strategies and database recommendations. While we've always done searching in the past, there seems to have been a change in the dialogue with our clients and greater acknowledgement of the role and contribution the library service can make, even though this role is not really reflected in our place in the organisational structure or reporting lines.
- The library has been moved from one department (IT) to the Formative Research team.

 Headcount was dropped from 1.0 FTE to 0.6 FTE on an annual contract basis. Emphasis is now far more on research, lit reviews etc than the physical library.
- The library has been relocated to a smaller space. The librarian's office is now down the corridor from the library. I moved the journal collection on my own, the removalists came at the end to move furniture and boxes of books.
- The Library has developed 2 new policies (previously these were internal procedure documents) 'Library Collection Development' and 'Library Membership', ratified by the Governance Committee and endorsing the Library's essential functions in supporting governance in the clinical setting.

The Library is in temporary accommodation, and we are refurbishing and redesigning a heritage building. There will always be a satellite library located in the main hospital building as it's part of the state Award that junior doctors have a 24/7 library for study purposes.

The new library will be technology-rich and provide facilities that can be integrated with research and education activities in support of clinical service delivery, and reaching out to the wider community and region. The new Research Librarian position will be shared with the Research Directorate, co-located in the new library.

We have a new LMS (OCLC WorldShare) which will be available via the internet (the last one was intranet–only). The LMS has a digital repository (for official [delete] Health publications) and this will also function as a repository for the Oral Histories that will record the history of [delete] Health. There will be a display space in the new Library. Consumer Health Literacy is an area we are moving into, and there is a 'space' for this function in the new library. Health literacy is broader than health information literacy, and the National Quality and Safety Standards focus on the broader aspects of patient engagement, as well as the requirements for provision of patient information. The Library is part of the organisation's framework for interventions in a number of levels to improve health literacy.

	Q.7.09 Any significant changes in service delivery health library/information services have				
	experienced in the last 12 months (n=130) CONTINUED				
	[all responses indicating that the question was not applicable have been removed]				
104	The Library has moved 6 months ago into a dedicated stand alone Library Building.				
105	the library manager has been invited onto the academic advancement committee, thereby				
	acknowledging the library's place within the education process, and also the library				
	manager's skill in this area.				
106	The Library space has been redesigned and redeveloped in last 12 months thanks to				
federal funding. This involved reduction in print material. Increased space for gro					
	and computer usage.				
107	The [delete] Hospital is currently coming to the end of a 5 year redevelopment project. All				
buildings on the campus have either been refurbished or replaced. During th					
	the Library has moved four times. We are currently located in a demountable building,				
	should be located in our new building (the Education and Research Building) in early				
100	2015.				
108	The most significant change was the public launch of our eBook collection.				
109	The move to a new purpose built library facility that is located between the doctors				
	common room and a university clinical school. This has significantly increased the utilisation of the library by staff and students.				
110	The number of staff servicing health researchers has been reduced as the number of				
110					
	Information Specialists employed by [delete] Library Services has been reduced. Outreac Librarians have been aligned to Flagships where previously they were aligned more to				
	staff at particular [delete] sites. Physical collections have been reduced or are in the				
process of being reduced.					
111 The physical library has been closed and the collection and staff were moved to a staff ware moved to a st					
	Centre. The collection is currently housed in the equipment room. Parts of the collection				
Centre. The collection is currently housed in the equipment room. Parts of the coare still in boxes due to lack of space. Staff hours have been reduced by half.					
112	The [delete] Library also provides library and information services to [delete] Hospital at				
	[delete] and [delete] Hospital at [delete]. These two facilities no longer have physical				
	libraries onsite. All services are now centralised at [delete] with an onsite librarian				
	presence to deliver training, library orientation and instruction when required.				
113	There has been a gradual decline in the use of the print book collection and in document				
	supply requests as the online resources have improved.				
114	There has been a significant increase in the short term Student placements (VICplace				
	registrations)in the hospital.				
	There has been a significant increase in the Medical and Nursing Students undertaki				
	study in the Univerity School of Rural Health onsite.				
115	This Library has gone from card loan system to a library management system				
116	Tightening of budget especially in terms of resources.				
117	undergoing a major redevelopment of the library facility at the [delete] Branch				
118	Updating of critical applications (library system interface, LibGuides) and a huge increase				
	in the uptake of information literacy sessions.				

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED [all responses indicating that the question was not applicable have been removed] 119 [delete] has added a new Campus at [delete]. 90% of the courses at [delete] are in health. That is major. 120 We are about to undertake significant changes in service delivery models, as explained in previous question. This will require more training in health librarianship for staff moving into the new structure. At present the information literacy and health database searching is embedded into student workflow within the curriculum at 1st and 2nd year, and it has taken a few years to achieve this goal successfully. We have Medline and CINAHL searching embedded into a first year subject in second semester (where the assessment is the search history), and F2F advanced systematic searching for EBP into tutorials, first semester of 2nd year, so we are keen to ensure these activities are retained and reviewed. 121 We are in the process of evaluating streaming video collections for staff and [delete] student use, and moving more towards electronic collections. We have also come under the auspices of the [delete] training institute and focusing on supporting the teaching staff and the information needs of the students. 122 We have been asked to undertake literature reviews within more areas of the health fields eg Allied Health and Nursing fields 123 We have ceased subscribing to UpToDate, cancelled remaining print journal subscriptions We have improved in service delivery since the 2 year vacant position was filled in July. 124 125 We have installed WiFi in the consumer and medical libraries, and a public workstation in the consumer library for clients to access health information, services such as Centrelink, and social media. 126 We have introduced Alma. We have more self-check loans (over 50%); we have more ebooks but students still clearly voice that they also want print. We have provided more (and more) seating due to increased library use and higher student numbers. We have re-introduced carrels to encourage quieter study in certain areas and students have welcomed them. We have submitted plans for minor building works and refurbishment to provide additional space and student meeting room, s well as increaseed silent space. They want it all! WE have purchased Presto and are currently preparing to provide universal search access 127 to the alerts, presently sent my email. It is anticipated this will result in an increase in demand for services. The Library Manager also runs a small bookshop and organises and co-ordinated the Biennial Memorial Service - which was held in 2014.

Q.7.09 Any significant changes in service delivery health library/information services have experienced in the last 12 months (n=130) CONTINUED

[all responses indicating that the question was not applicable have been removed]

- 128 We have redirected funding from purchasing print resources to implementing improvements identified by our clients in 2013 survey. The main issues related to creating a more user-friendly, ergonomic study / reading environment with additional space and more places for people to sit. This was done after an major audit of our ageing print journal collection. We also implemented WiFi for clients so they could use their personal computers or mobile devices within the library and we have seen a marked increase in usage of the library physical space. We also implemented a library website to enable clients to find our service information remotely and after hours, again as a result of feedback. We opted to purchase Libquides software which has also given us platform for providing tailored subject guides for our users in future. We have also taken decision to leave shared library management system arrangement to purchase a more affordable open source system, Koha; thereby regaining some control of over the management of our collection. The issue will be to manage client expectations (ie they won't necessarily see what other Qld Hospital & Health Services Libraries hold in future). We will also need to develop strategy and skills to manage e-resources within the new system including authentication issues. The demand from clients is shifting; we are providing more value add services such as mediated searches and mentoring / coaching clients to develop their literature search skills.
- we have some grant funding for a library technician in our [delete] branch library only short term contract
- 130 We have unofficially increased our role in organisational archives.
- We no longer have our own manager as this position was made redundant; management of the staff is now split with library & admin staff reporting to one manager and our nursing staff reporting to another.
- We no longer manage the collection or facilitate purchasing, instead we collaborate with the Information Management portfolio who carry out the bulk of that work. We are looking more and more at OERs as the university moves more into the provision of online programs. Provision of advice on research storage, data management and research impact via social media.
- We underwent a library review in 2013. Budget and staffing was reduced in 2013. Most of our print journal collection was removed/disposed to build training rooms within the library.
- We will be launching our new discovery service in March so have been actively preparing and designing the back and front ends of the Ebsco Discovery Service.
- 135 Whilst there has been a decrease in face-to-face contact the service up-take has remained relatively constant. Part of this I put down to slightly reduced staff contact hours and the fact that due to extreme space constraints in the organisation, the library is often being used as a default office for anyone needing a work space. This at times restricts the ability to use the computers, study area etc,hence the online/phone/email requests as opposed to face-to face.
- 136 | world cloud data base

APPENDIX 5: Self-Described Health Librarian Survey Comments

	1.10 Comments – What is the status of your current employment? (n=3)			
1	I run a small business as a Personal Consultant (Organiser/Tutor/Coach), which inevitably			
	draws on my association with my part-time job as a Health Library Technician on			
	occasion. I address a client's situation holistically. I am answering this survey from my			
	business hat, as it's about 50-50 time on each. I had not been able to find full-time			
	permanent employment since graduation, so it might be useful for you to know.			
2	My role is doing volunteer work and research for the health library sector			
3	part time (4 days per week)			

	1.12 Comments - In which State/Territory do you work? (n=1)
1	we are national service but physically located in South Australia

	2.01 Comments – Indicate all significant categories of users your health information related role provides services to (i.e. who are your clients). i.e. those users who represent regular or substantial consumers of your time and services. Please choose all that apply. (n=2)
1	Home-based business owners.
2	health LIS workers but indirectly

	2.02 Comments - Please indicate which of the following information services you provide			
	in your health information related role. Please choose all that apply. (n=2)			
1	high-level systematic review searching and support to underpin national policy			
	Searching the literature for evidence relating to woundcare topics for writing up Evidence			
2	Summaries for the Joanna Briggs Institute			

	2.04 Comments - Please indicate which of the following access services you provide in
	your health information related role. Please choose all that apply. (n=1)
1	organisation website

	2.06 Comments - Please indicate which of the following building and equipment services		
	you provide in your health information related role. Please choose all that apply. (n=2)		
1	I help clients set up study spaces & work spaces, but don't provide them myself.		
2	study area, printing, copying available centrally within the organisation		

2.08 Comments - Please indicate any other services you provide in your health information related role not listed in the previous 6 questions. (n=9) Data collection, including design of surveys Data analysis Writing up research results Reports to funding bodies. 2 development of specialised search filters and associated research and publications Finding and supplying citations and fulltext articles via Endnote relating to woundcare topics to a job share colleague who writes up the Evidence Summaries for the JBI I'm assisting the Trials Search Coordinator for one of the Cochrane groups with maintenance and de-duplication of the Group's register of controlled clinical trials, as well as screening new studies for inclusion/exclusion in the register. I am involved in developing search filters and am based in a university research team. The search filters we develop are funded by external organisations. The funding is gained through the hard work of our research director foremost in developing relationships with research organisations and through the hit and miss submission of grant applications. Our research director is a leader and champion in this field and an advocate for the skills of librarians. 6 | I help clients find preventative-health related information & advise on which kinds of health professionals might treat their given condition (if they're not already a patient somewhere appropriate), and I assist people to take charge of their mental health by engaging with their own lives creatively & proactively. 7 Journal aggregation

Research ABOUT the health LIS sector so I do not actually work providing health

8 N/A

information as such

- 2.10 Comments Please share in a few sentences any other details of your health information related role/s, such as scope, roles and responsibilities, you think might be important. (n=10)
- 1 A few issues that I encounter in my role.

Consideration of challenges of being a sole practitioner and the need to collaborate with a range of clients across the healthcare spectrum.

Workload issues.

Burnout potential.

Skills needed to negotiate organisational politics.

Loss of discreet budget.

Lack of backfill for any leave (therefore have to rebuild client relationship on return to work plus need to catch up on work not done during absence) – my solution until now has been to take short leave periods but this is unsustainable. I am about to go on 4.5 months leave with no backfill – not looking forward to what I am likely to return to! Establishing and promotion of skills, roles and attributes of health librarian to organisation.

- I am employed as a Research Assistant for the [delete] Centre for Evidence [delete] which I job share with a nurse colleague. The centre is based at [delete] University and part of the [delete] Institute. I use my librarian searching skills to find evidence and journal articles (systematic reviews, RCT's studies etc) for specific woundcare topics that are stored in Endnote. I critically appraise the evidence then hand it over to my job-share collague to write up the Evidence Summary for the JBI.
- I have developed and published free education tools for health libarians, derived from the methodology used in the search filter development in our service, and have also presented on the methodology at conferences.
- 4 I have tutored 2 people studying mental health online computer skills, people skills, & deciphering unclear materials or assignment instructions.
- I run my own independent information business supplying services to clients without a library. My major client is [delete]. I provide the staff of the hospital with an offsite "e Library" service, which includes literature searches, targeted current awareness, assistance with use of Clinicians Health Channel, training sessions (eg how to search PubMed, EBSCO for the completely uninitiated), document delivery, help with subscriptions, book purchases and general reference work. I run this service from home via email, except for the occasional face to face training session.
- I think librarians ought not be hesitant to participate with researchers in their institution who are conducting studies. It boosts our expertise, and librarians' skills in understanding & managing data are a really good fit in research teams these days. Many of us are daunted by the statistical side of research; however I've learned that many teams get the critical stats work done by experts outside the project anyway. Suggest we consider strengthening the health librarian competency relating to Research:-)

- 2.10 Comments Please share in a few sentences any other details of your health information related role/s, such as scope, roles and responsibilities, you think might be important. (n=10) CONTINUED
- I work for a research centre funded by NHMRC research grants. All my work relates to supporting the researchers and is mainly comprised of running searches for systematic reviews and other related research. There is some one on one and group training provision for researchers within the centre and participation in delivering EBP and systematic review workshops.
- 8 I work in the publishing industry largely responsible for health collection content. My company is an online publisher, aggregating journal content in broad subject groups for commercial purposes. My main areas of responsibility are bibliographic control, authority control, database management and user education.
- 9 My role is involved in developing search filters that provide the user quick access to the literature in PubMed with a wide range of subject areas such as Aboriginal and Torres Strait Islander health and residential aged care. The search filters are made freely available on the internet so anyone can access them. There is a real need for access to this type of service evident in library guides available from university libraries.
- 10 N/A

APPENDIX 6: Australian Health Workforce Data

Health Profession	Size of Workforce (2012)#	Size of Workforce (2014)^	AHPRA Status
Nurses & midwives	343,703	370,303	Registered
Medical practitioners	91,648	101,133	Registered
Pharmacy assistants	42,500		Unregistered
Psychologists	29,645	32,766	Registered
Pharmacists	26,548	29,014	Registered
Massage therapists	25,000		Unregistered
Physiotherapists	23,501	27,543	Registered
Social workers	19,300		Unregistered
Dental practitioners	19,087	21,209	Registered
Ambulance services/paramedics	19,000		Unregistered
Occupational therapists	14,255	17,200	Registered
Medical radiation practitioners	13,508	14,866	Registered
Medical laboratory scientists	13,000		Unregistered
Health informatics workforce	10,919 -		Unregistered
	11,806*		
Emergency medical technicians	10,000		Unregistered
Naturopaths	10,000		Unregistered
Reflexology	9,420		Unregistered
Counselling and hypnotherapy	7,780		Unregistered
Personal care assistance/assistance in nursing	7,000		Unregistered
Speech therapists	6,500		Unregistered
Sonographers	5,135		Unregistered
Optometrists	4,568	4,915	Registered
Dietitians	4,500		Unregistered
Chiropractors	4,462	4,998	Registered
Arts therapy	4,200		Unregistered
Chinese medicine practitioners	3,952	4,494	Registered
Podiatrists	3,690	4,386	Registered
Optical dispensers	3,270		Unregistered
Dental technicians	3,000		Unregistered
Exercise scientists and physiologists	3,000		Unregistered
Western herbal medicine	3,000		Unregistered
Audiologists	2,000		Unregistered
Osteopaths	1,676	2,000	Registered
Anaesthetic technician	1,000		Unregistered

Health Profession	Size of Workforce (2012)#	Size of Workforce (2014)^	AHPRA
Infant massage instructors	1,000		Unregistered
Reiki practitioner	1,000		Unregistered
Respiratory scientists	900		Unregistered
Sleep technologists	900		Unregistered
Hypnotherapy	893		Unregistered
Shiatsu	850		Unregistered
Health Librarians		760	Unregistered
Homeopaths	700		Unregistered
Audiometrists	500		Unregistered
Music therapists	383		Unregistered
Orthotists/Prosthetists	320		Unregistered
Cardiac Scientists	300		Unregistered
Aboriginal and Torres Strait Islander	298	391	Registered
health practitioners			
Health library technicians		290	Unregistered
Orthoptics	223		Unregistered
Medical photographers	75		Unregistered

[#] AHMAC. Final report: Options for regulation of unregistered health practitioners. April 2013 (p.59-61)

[^] https://www.ahpra.gov.au/annualreport/2015/ (p.46)

^{*} Estimated numbers from 2010. http://www.hwa.gov.au/sites/uploads/HWA13IAP009_Health-Information-Workforce-Report_v3.pdf (p.18)