

PROJECT REPORT

Rural health resource databases: a little nurturing goes a long way

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A B S T R A C T

Access to rural health research information together with the type and availability of educational resources in rural areas, are important to rural health care providers, community members, researchers, students, planners and policy makers. The Rural Health Research Register (RHRR) focuses on current and recent research activity being undertaken in Australia in the field of rural health, while the Health Education Rural Remote Resources Database (HERRD) focuses on education courses and resources relevant to the practice and professional development of rural and remote health professionals throughout Australia. Early versions of these databases were established between 1992 and 1997, and in the period 1998-2001 both information resources were systematically updated from through targeted promotion, registrations and the creation of web-accessible search facilities; they continue to be maintained and updated. Detailed information is available by searching the RHRR and HERRD databases via the web or by contacting the relevant coordinator. This article examines some of the issues in developing and maintaining these resources and demonstrates the usefulness of their contents to rural healthcare workers.

Keywords: database, education, information, Internet, research, WWW.



Introduction

The area of rural health has expanded during the 1990s and now in the early 21st century there are more providers committed to improving research and education in the field of rural health than ever before. Despite this rapid growth, information about rural health research, resources and education providers can be difficult to locate and access¹. Many rural health professionals work in relatively isolated locations and it is important that they have ready access to education resources and courses, and research into rural health and practice.

A partnership between rural health units at Monash University, Melbourne (Traralgon Campus), Australia, and the University of South Australia, Adelaide (Whyalla Campus), Australia, has generated two resources that serve the information needs of health professionals. The Rural Health Research Register (RHRR) contains details of both recent and current research projects that are particular to rural and remote health. The Health Education Rural Remote Resources Database (HERRD) contains information about educational programs and resources that have direct significance or benefit to rural and remote health professionals. Both RHRR and HERRD, in their roles as national clearing houses for research and education, assist in making information about rural health activities accessible to those working in the field.

There are few resources comparable to RHRR and HERRD. In the United States of America and Canada, the Maine Rural Health Research Center, with support from the Federal Office of Rural Health Policy, has developed a website entitled 'Database for Rural Health Research in Progress'². In the United Kingdom, the Department of Health Research and Development have developed a website titled 'The National Research Register'³ but it does not differentiate between rural and non-rural research. HERRD is a unique national resource of educational programs and resources available to all categories of rural and remote health professionals. The Australian College of Rural and Remote

Medicine sponsored the Rural and Remote Medical Education On-Line (RRMEO) database during 2001. RRMEO is a network of clinical and educational resources, interactive activities and an online community dedicated to developing best practice in rural and remote health care⁴. In Europe EMSIS, the European Medical School Information System, is a web-searchable database of undergraduate medical schools and the courses offered⁵.

This article describes how the Australian RHRR and HERRD have evolved over the last 10 years. These useful resources for policy makers, clinicians, researchers and students can be searched on the Web at: <http://www.med.monash.edu.au/mrh/resources>

Background

RHRR was first established in 1991 under the direction of the Postgraduate Medical Education Committee of the University of Queensland, Australia. Its purpose was to make available information about rural health research being undertaken in Australia. Still in its infancy in 1992 with 264 projects listed, its development continued with funding by the Rural Health Support, Education and Training (RHSET) program. By mid 1994 RHRR had grown to contain 752 entries. In April 1995, the Menzies School of Health Research (Darwin and Alice Springs), a consortium member of ARHRI, the Australian Rural Health Research Institute, took over RHRR management, making available limited Web searching facilities. ARHRI was disbanded at the end of 1997 and the management and details of the 927 entries of RHRR were transferred to the then Monash University Centre for Rural Health, Melbourne (Moe Campus).

HERRD, an initiative of ARHRI, was developed and managed by the Centre for Rural and Remote Area Studies, University of South Australia, in Whyalla. Development activities commenced in 1996. In response to the increase in demand by rural and remote health professionals for access to user-friendly information about professional development



programs and educational resources for their continuing professional education needs⁶⁻⁸, HERRD grew rapidly to approximately 1000 entries by 1997.

In 1997 when ARHRI disbanded, the Monash University Centre for Rural Health, now known as the Monash University School of Rural Health (MRH) and the South Australian Centre for Rural and Remote Health (SACRRH), which now forms part of the Spencer Gulf Rural Health School (SGRHS), planned the continuation of the databases. The RHSET program agreed to fund the redevelopment, maintenance and promotion of HERRD and RHRR for the 3 years from 1998 to 2001.

Developmental processes

Updating RHRR

At the end of 1998, work began at MRH on updating RHRR over 3 years by reviewing stored information and combining this with new information (Table 1). RHRR was assessed for:

- Currency
- the methods used to collect new information
- the needs of both current and potential users of RHRR
- current and potential contributors to RHRR

A key outcome of this review was an update to the print registration forms used to place new items in the database. This refinement reduced the registration form from two pages to one and provided a user-friendly form that could be printed on the reverse side of the promotional leaflet. Data fields included: research project title, type of research study, organisation contact details, primary and co-investigator names and organisations, project funding details including the project's timeframe, a brief summary about the project, and where applicable, any publications that have arisen from the study.

Organisations with registrations included university departments, colleges, and government and non-government agencies. Promotion was aimed at attracting new registrations for RHRR as well as increasing awareness of the database by inviting people to use RHRR to find rural health research information. The registration form and flyer were included in the February 1999 issue of the 'Australian Journal of Rural Health', and inserted in MRH's regular publication 'The Bulletin', which is distributed nationally. A major promotion was completed with the launch of the on-line search facility of RHRR at the Toowoomba 'Infront/Outback' Conference in February 2000. In September 2001 a call for new and updated registrations was distributed to all organisations currently listed in RHRR with details of their research activities. Promotional pamphlets were also re-distributed to identifiable research institutions with an interest in rural health, inviting their contribution to RHRR.

Updating HERRD

Updating and continued collection of information for HERRD began at SACRRH in late 1998. The key strategy for collecting new entries was direct contact with universities, colleges, government and non-government agencies, professional associations, businesses and training providers for rural and remote health applicable educational programs and resources. HERRD was also advertised by word of mouth at conferences and meetings, and brief explanations were given of how information would be used. From this, a wide range of educational resources such as videos, learning packages, books, short courses and higher degree programs were identified. A few organisations requested not to have details of their resources included in HERRD because they did not want or need additional enquiries. Data fields collected included: resource title, resource provider contact details and web links, who would benefit by using the resource, type of delivery, availability and a brief summary of the resource (Table 1).



Table 1: Data fields available for the update of RHRR and HERRD

Data fields	
RHRR	HERRD
<ul style="list-style-type: none"> • Project title • Project abstract • Type of research study • Organisation contact details • Primary and co-investigator names and organisations • Project funding detail and timeframe • Publications, where applicable 	<ul style="list-style-type: none"> • Resource title • Resource content details • Resource format/delivery method • Resource provider contact details and web links • Beneficiary of resource • Resource availability, fees and timeframe

RHRR, Rural Health Research Register; HERRD, Health Education Rural Remote Resources Database.

Like RHRR, promotion was aimed at attracting new registrations as well as increasing awareness of the database by inviting people to use HERRD to find rural health educational resources and information. HERRD was strongly promoted by numerous presentations at workshops, seminars and conferences in Australia and North America. HERRD was promoted in 2001 editions of the 'Bush Telegraph' (a publication of the Spencer Gulf Rural Health School), both as a feature article and a brochure insert and widely circulated to rural health stakeholders and organisations around Australia.

Joint promotion of RHRR and HERRD

In March 2001, a major relaunch of RHRR and HERRD took place at the 6th National Rural Health Conference in Canberra, Australia. Posters augmented a computer Power Point presentation that displayed the electronic search process for each resource.

Developing web access

A key outcome in their development of both databases was web searching to make information accessible. From September 1999, RHRR has been managed locally at MRH and is periodically copied to a web-accessible database for searching through the web site. From June 2000, HERRD has been hosted by Monash University while administered on-line at SACRRH, making information immediately available for searching through the web site.

Experiences and insights

RHRR

The initial promotion of RHRR was not successful in obtaining many new and updated records; in the period 1999-2000 only 30 new registrations were received. Up to 3 years had elapsed since RHRR was updated and some organisations had changed names or ceased to exist. A restructure of area codes throughout Australia in 1995-1997 made telephone and fax access extremely difficult. To supplement the promotion, participating organisations were emailed a request for updated information. This gained an excellent response. The updating process commenced at the time organisations began adding their information to the web, and this provided an excellent resource when accessing organisations proved to be difficult.

Prior to the 2002 publication of a limited-number print edition of RHRR, a promotion and mail-out targeted organisations selectively. Letters were sent to the research coordinator with a request for projects to be updated and new projects to be registered, together with a list of their respective projects. This was successful, with 95 new registrations received in response. Not included in this figure are the many returned registrations with updated information of current or recent projects. In early 2002, 100 copies of RHRR were produced and dispatched to organisations that had contributed new registrations in the previous 12 months.



During the call for new records, if updated information could not be obtained, projects with insufficient or incorrect organisation addresses were transferred to an archives database. Also archived were many entries dated prior to 1993 and considered to be out of date. This reduced the number of registrations listed in RHRR form 927 to 524 by the end of 2001 (a similar call for new registrations at the end of 2002 added 68 records).

An assessment of the various promotions undertaken for RHRR indicate that personalised letters and lists of projects sent to the Research Coordinators of organisations were the most successful. This also allowed contact details to be maintained by following up those letters that were 'returned to sender'.

HERRD

At the beginning of 1998 there were approximately 1000 entries in HERRD and by mid 1999 this had grown to more than 1350. Up to this time the main focus of HERRD had been educational packages, resources and courses. After June 2000, the total number of records increased to 1450, and by the time of the official launch in 2001 there were 2000 records. A large number of the new entries were for types of resources previously not included in the database,

including scholarships (particularly undergraduate), conferences, organisations such as the new University Departments of Rural Health and some rural health related web sites.

In its early stage of development HERRD could only be accessed through the database manager by phone, fax or email and the rate of enquiry was in direct proportion to promotion activities, averaging 30-40 enquires per month. The database manager conducted the search on behalf of the enquirer and returned the search results. This often included additional hard copy information sent by the organisation that lodged the original record.

Current web Access

Both databases have been web-searchable since June 2000. A web-based form page for submitting new and updated information has been available during this time. Data collected through 2001 and late 2002 indicate a usage rate of approximately 45 visits per month for RHRR and approximately 35 visits per month for HERRD. Main access to both databases is through the MRH website and links are also provided on the SGRHS website and as part of the Rural Health Webring⁹.

Table 2: Results from web search for 50 random entries of both HERRD and RHRR

Search results	Search item source	
	HERRD <i>n</i> (%)	RHRR <i>n</i> (%)
Good or excellent information	25 (50)	14 (28)
Limited information	18 (36)	7 (14)
No information	7 (14)	29 (58)

RHRR, Rural Health Research Register; HERRD, Health Education Rural Remote Resources Database.

Table 3: Journal publications arising from RHRR projects

Results of search	Completed publications		Incomplete publications (not published)
	Published	Not published	
Good or excellent information	6	4	4
Limited information	3	1	3
No information	4	17	8

Usefulness of the resources

The web generally makes information more accessible than in previous times, but specific research and education information is scattered and difficult to find, or simply not available on-line. The strength of HERRD and RHRR is that most of the information they provide is either not otherwise available or difficult to find. To demonstrate this, two methods were used to find information for 50 random entries from both RHRR and HERRD:

- Google search engine¹⁰
- Search of the main organisation or provider's web site

A summary of the results is shown (Table 2).

For the 50 RHRR projects selected, the search produced 14 (28%) with good or excellent information available, 7 (14%) had limited or basic information while for the majority (58%) there was no information available. This indicates that less than half the projects have information available by searching the Web.

For the 50 HERRD entries selected, the search produced 25 (50%) entries with good or excellent information available, 18 (36%) had limited or basic information while for 14% entries there was no information available. Not surprisingly, the results are better than for RHRR because in many cases the provider relies on potential users locating and ultimately selecting their resource so the information must be accessible. However, this method of discovering information was onerous and time-consuming, making a searchable database like HERRD valuable.

For RHRR, a search of the two main medical databases CINAHL and MEDLINE, accessed through Monash University Library, together with information already collected, checked for refereed publications arising from

50 RHRR-listed research projects. A summary of the results is shown (Table 3).

It was found that only 13 projects had a published journal article arising from the research. However, 15 of the selected 50 projects were not yet completed so the true publication rate of projects was 37% (13/35). This indicates that RHRR is a useful resource of rural health research information that would otherwise not be accessible.

Conclusion

HERRD and RHRR are two important resources that provide a 'one-stop shop' of information, making searches simple and quick for researchers, government organisations, health professionals and students. They also make information available that otherwise could not be accessed or disseminated without having direct knowledge of its existence.

By updating information and enabling web searching, RHRR and HERRD are now established as useful resources for health professionals working in rural and remote areas to access information on current and past research and education courses and resources. Using the web, researchers, education providers and organisations can list their particular research, course or resource directly on the website and can also enter and update their existing contributions.

Funding for the development of HERRD and RHRR ended in late 2001 but there is a commitment on behalf of MRH and SACRRH to continue to support and maintain these important resources, and promote them through in-house publications, conferences and web links. To supplement the web access to RHRR, a CD-ROM copy of RHRR is also being developed.

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