Extending high quality health information to non-government organisations across the Northern Territory: experiences of NT Health Library Services

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Abstract
This paper discusses NT Health Library Services’ initiative to provide resources and services to health professionals who work for non-government organisations across the Territory. In 2009, Memorandums of Understanding (MOUs) were established. Since then a website has been created specifically for these MOU members and a recent renewal and upgrade project ensured the agreements were updated and the website security standards were being met. With vendor permission the library currently offers access to the following: eight research databases, two clinical decision support tools, one medication database and five electronic book and journal collections. Marketing has begun to increase awareness among these external clients.

Introduction
In the age of digital information saturation, utilising authoritative health information is crucial to enable health professionals to deliver evidence-informed practice. High quality electronic information resources can positively impact clinician decision-making and clinical care (Maggio et al., 2019). The business of health libraries is to streamline this health information discovery for clients so that reliable knowledge can be translated more readily into patient care. To achieve this, active curation of a collection of resources and tools is required as well as liaising with content providers who allow access to these resources based on formal agreements. Promotion can then be undertaken to increase awareness for clients who require access to this information to inform their work.

Health information professionals sit in the middle of the vendors and the health professionals, managing access to these resources and ensuring that access is authenticated for only those users as defined by agreements. These agreements are usually within the bounds of the health department or hospital where the health library sits. However, for other health organisations, increasing costs for high quality electronic journals, clinical decision support tools, medication information and electronic books have meant that many cannot afford to subscribe to these quality
health information resources for their staff (Purnell, 2018). This is a significant issue in Australia’s Northern Territory (NT) where there are many small community and non-government health organisations who play a crucial role in the delivery of holistic, timely, culturally aware health care in the Territory. This paper will focus on the journey of one health library leveraging partnerships with vendors to connect community health organisations with quality health information across the NT.

Background
The population of the NT makes up 1% of the total population of Australia (Australian Bureau of Statistics, 2021). Many live rurally and remotely, and 70% of those people living remotely are Aboriginal Australians residing in one of 600 remote communities and outstations (NT Health, 2023).

The Department of Health (NT Health) manages the single public health service in the Territory, operating six hospitals and delivering direct care through 74 primary health clinics (Northern Territory Government, 2022). Resource sharing and collaborative partnerships have long been active across the Territory, and NT Health also supports around 133 clinics and services operated by Aboriginal Community Controlled Health Organisations (ACCHOs), and works in close partnership with numerous other Non-Government Organisations (NGOs).

With many based in rural and remote areas of the NT, where time is critical and internet connections can be poor, there is a gross inequity of resource access for the staff in these organisations (Wakerman and Humphreys, 2019). This inequity threatens the level of health care provided to Territorians living outside of regional centres, a majority of whom are Aboriginal Australians already living with inequitable health, societal and living conditions (Thomas et al., 2015).

As the sole health library service for all of the Northern Territory – an environment where government and non-government primary health professionals often work alongside each other – we inevitably consider the division between who can and who cannot access our resources.

The Partnerships
Back in 2009, NT Health Library Services asked how we could further contribute to improving health outcomes in the Northern Territory. We believed we could do that by increasing equity of access to high-quality information and knowledge resources for health professionals in the NT, beyond the bounds of NT Health employment status. We were already offering library membership and use of our physical resources to health professionals not employed by NT Health. However, with technology becoming increasingly useful as a tool to share information across great distances, we recognised an opportunity. We re-thought our understanding of who our clients are and how we could support them, asking ourselves how we can deliver
health information to remote health professionals that is high-quality, sustainable, far-reaching, concurrent, and at low or no cost to us or the organisations involved.

We began to re-think our existing partnerships. In 2009, after discussions with internal stakeholders, representatives from health organisations and some informal scoping with our vendors, what resulted was a suite of Memorandums of Understanding (MOUs) which enables NT Health Library Services to act as a bridge to extend trustworthy information into the hands of non-affiliated primary health care professionals across the Territory, at low cost to us, and no cost to these organisations.

The end-user product, operating with the name eLibrary4HP, is an electronic library of select quality health information resources for eligible health professionals across the Territory. The concept of eLibrary4HP is simple, but relies on three basic elements to unite: first, the providers must allow access to their content; next, health organisations must express interest in gaining access through a formal MOU; and finally, the health library must manage the authentication of this access. It remained much the same for 11 years until Library Services commenced a Renewal and Upgrade Project which ran from 2020 to 2023. This project ran in two phases: first, renewing all existing MOU agreements with participating health organisations; then, re-aligning member management processes to bring them up to current security standards.

All of the resources provided in eLibrary4HP are done so on a gratis basis - these vendors have willingly agreed to extend access already outlined in our licencing agreements to health practitioner staff working in participating external community health organisations. In 2009 we had six participating vendors offering: two research databases, two clinical decision support tools, one medications database and one e-journal collection. Today, ten vendors are participating in the eLibrary4HP service, offering members: eight research databases, two clinical decision support tools, one medications database, and five electronic book and journal collections.

This service is designed to bring authoritative information resources into the hands of primary and community health care professionals. These are staff who are generally working in remote locations, and with vulnerable communities. To enter into an MOU, organisations must operate primarily in the Territory and be either a Non-Government Organisation or an Aboriginal Community Controlled Health Organisation and do not have access to a library service in the NT or elsewhere. As per the MOUs, access to eLibrary4HP is stipulated only for health practitioner staff within these organisations.
**Library Manages Access**

In 2009, without additional resources or funding to get this initiative off the ground, Library Services sought to make the process as simple as possible and minimise staff time whilst delivering a sustainable product. The site was initially set up to run through EZPZ proxy and was hosted onsite on NTG servers. Login credentials were generic, with each participating health organisation delegated a username and password, which all individuals from that certain organisation would then use. This process was not particularly secure, and in 2019, significant risks were identified in relation to allowing external users into the NTG IT environment. Resolving these issues and rebuilding a more secure, robust service was the focal point of Phase two of the Renewal and Upgrade Project.

In May 2023, as part of Phase two, we migrated to a cloud based, hosted proxy through a third party provider. We then transitioned all eLibrary4HP members to an individual sign-on, and restricted email addresses in registration forms to a finite list of domains associated with member organisations. Anyone attempting to input an email address with any other domain – including one from our own organisation (NT Health) – receive an error message. This institutional email address is then used as their username for eLibrary4HP, and all communication regarding the service is sent to that address.

Not only is this a secure and user-friendly way to manage legitimate authentication, but this new process also enables us to keep track of any bounced emails and monitor usage statistics from an individual all the way to an organisational level.

**Awareness Through Marketing**

Our Communications Plan has already identified the MOU organisations as there is clearly a need to increase awareness of this service to the individuals it is designed to support (Hermes-DeSantis et al., 2021). Currently, the Training and Research Support team are building a new Remote Outreach Plan and eLibrary4HP member organisations are firmly addressed within that document. While our communications efforts on the whole are primarily aimed at our NT Health clients, both of these plans can and should accommodate external clients.

With increasing awareness of the service, there is the threat that costs may rise. Annual costs for the proxy service increased from around $1,000 dollars to $2,500 dollars with the hosted proxy upgrade. While our strategic priorities still justify this charge, increasing costs may impact on the future sustainability of this service.

**The Future**

The fact that all participating content providers are providing access at no cost is what makes this initiative viable and sustainable. However, several have stated in the past that they may have to impose additional costs to our agreements if usage from...
the eLibrary4HP cohort rises too significantly. If this occurs, the continuance of the service may be at risk.

Future threats include the potential for vendors to add costs and the increase demand on staff time. For now, staff time is minimal thanks to efficient membership processes, low member numbers, and swift technical support from our hosted proxy vendor. If these raise significantly in future, the sustainability of the service may also be at risk.

There have been 373 login sessions for eLibrary4HP in the past six months. Despite low numbers, feedback has indicated that this service is highly valued amongst those who use it. The clinical information and current management recommendations have had huge impacts on clinical practice, enabling individuals to provide up to date evidence-based care (Lienesch et al., 2020).

For organisations with little to no funding, remote locations and vulnerable patients, any support we can provide is valuable. NT Health as an organisation agrees. The NT Health Strategic Plan 2023-2028 places an emphasis on strengthening relationships with non-government and Aboriginal-controlled organisations, noting that “our services need to be accessible to all” (NT Health, 2023). The staff at NT Health Library Services believe that the eLibrary4HP initiative – in increasing equity of access to authoritative health information – is already making steps toward that vision.

**Conclusion**

This initiative shows that even the most basic of health library fundamentals – who our clients are – can evolve. Through a shift in thinking and some proactive actions, health libraries are continuing to adapt to their client needs in the face of technological advancements and inequities. We can think, and re-think, in creative ways about our existing partnerships, and whether informal arrangements can become formal agreements.

**References**


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