

Queensland Health's CKN celebrates 20 years of service

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In March 2021, Queensland Health's state-wide *Clinical Knowledge Network*, CKN, celebrated a remarkable 20 years of continuous service – supporting over 77,000 clinicians, including Queensland Ambulance Service paramedics, working in all areas of Queensland's public health system, across the entire state.

CKN's mission is to provide Queensland Health's front-line clinicians with a world-class online evidence base for direct patient care, clinical improvement and innovation, and enhanced patient safety. CKN is also used extensively by clinicians undertaking and delivering specialist medical, nursing, and allied health training programs, and medical researchers. Additionally, CKN supports the operations of crucial state-wide services such as the Queensland Poisons Information Centre (QPIC) and 13HEALTH.

The 'pandemic year' of 2020 was CKN's busiest to date, with over 12 million searches for medicines and decision support information. Unsurprisingly, this unprecedented upswing in usage incorporated a long list of pandemic and COVID-19 related search topics broadly categorised as research, diagnosis and treatment, public health responses, vaccines, and drug dosing. During the first fraught 12 months of the pandemic, CKN also delivered over one million journal articles to Queensland Health clinicians and researchers. Similar trends have been apparent in 2021 with new variants of SARS-CoV-2 such as Delta creating renewed demand from clinicians for the latest information on vaccines and treatments.

A shared evidence-base

The *Clinicians'* (later *Clinical*) *Knowledge Network* was originally launched in March 2001 as a modest state-wide collection of clinical knowledge resources intended to support evidence-based practice within Queensland Health. Through centralised procurement of strategic content, it was envisioned that CKN would ensure equity of access to the latest clinical information for all clinicians working in Queensland's public health system, regardless of their location across a geographically large state, whilst also delivering greater value for money.

A business case for CKN presented in 2000 argued that the total cost of clinical knowledge resources across Queensland Health could be reduced through strategic state-wide contracts, as had been demonstrated a few years earlier by CIAP in New South Wales. In the intervening two decades, this vision has been realised with exceptional results, both in terms of the scale and quality of content and services delivered to front-line clinicians and return on investment (value for money).

Fiona Jensen, Manager of Library and Knowledge Services at Cairns and Hinterland Hospital and Health Service was the CKN Project Officer until 2012. Now using CKN on a daily basis to deliver services to clinicians in far north Queensland, Cape York and Torres Strait, Fiona has noted a range of benefits that CKN brings to hospital clinicians and administrators. There is, she observes, the centralised portal for resources that “enables HHS [library] staff to concentrate on service delivery to their clinicians, without having to manage contracts, content providers and subscriptions.” CKN’s state-wide presence “also means that when clinical staff move between HHS’s, their access to this information remains the same.”

Over two decades, CKN’s centralised model has also ensured maximum value for money is achieved for the agency as a whole. For example, recent analysis has identified an annual return on investment to Queensland Health of \$38 saved for every \$1 spent on journal content by CKN.

Significantly, at every step in its development and growth over two decades, CKN has been scoped and configured by health librarians and procurement specialists with the advice and help of clinicians, for clinicians. Feedback from clinicians still guides the choice of content and delivery of services in 2021, particularly as CKN continues to respond to emerging and changing needs necessitated by COVID-19.

Growing and innovating

Since its launch in March 2001, CKN has extended progressively its scope and influence to become a distinct and highly valued state-wide resource. In terms of funding for collection development, CKN’s expenditure on content is significantly above the CAUL 2019 median for all Australian universities, across all subject disciplines. No data comparisons are possible at this time for expenditure on specifically health related content.

CKN’s uniquely comprehensive offering in Queensland includes multiple leading clinical decision support tools: EBSCO’s DynaMed and Isabel products, BMJ Best Practice with Comorbidities, and Elsevier’s Clinical Key and Clinical Key for Nursing solutions. CKN also delivers extensive medicines resources and research databases, and significant collections of ebooks and full-text journal content. In 2021, CKN reached a break-through agreement with Oxford University Press to deliver a new bespoke *Hospitals Collection* comprising a comprehensive online library of textbooks and handbooks in medicine and nursing – around 200 key titles.

CKN’s management always aims to be responsive to changing and emerging clinical topics and needs. The innovative *Coronavirus (COVID-19) Information Centre* developed by CKN at extremely short notice in January 2020 has been especially critical in supporting clinicians throughout the pandemic – generating over 13,000 unique views and considerable positive feedback since going live. In mid-2021, CKN

initiated and launched new targeted collections for emergency care, antimicrobial stewardship (AMS) and complementary and alternative medicines. More focussed collections of this type, built in consultation with clinicians, are planned for the near future in areas such as sepsis.

Looking to the future

For ten years, Rachel Wray was CKN's Senior Librarian and systems specialist and pivotal in helping the service to grow into a "one stop" portal for the information needs of Queensland Health's clinicians. Rachel also led the team through arguably CKN's greatest test prior to COVID-19 – the January 2011 Queensland floods, when power and internet services were cut to large areas of the state including Brisbane. Despite the widespread impacts, CKN remained available to clinicians around the state throughout the crisis – a truly remarkable achievement.

Now a Team Leader at the State Library of Queensland, Rachel was asked in early 2021 to reflect on her experience with CKN. Her response highlighted how CKN has continually adapted to the library and web technology of the time: "remote access did not exist for the first seven years. And in 2001 there were no 'search box' discovery layers that provide the integrated searching capacity of today. To see CKN continue to grow and develop with 24-hour support, regular training and CKN champions, I cannot help but be proud of being involved with, what I still believe is, a ground-breaking service."

As the current manager and custodian of CKN, it is gratifying for me to be able to recognise how far CKN has evolved from comparatively modest beginnings into Queensland's most comprehensive clinical information portal and acknowledge its many successes. Our model, informed by library and procurement best practice, has been studied by colleagues in Australia and overseas and we know that some of our innovations have been applied in other similar portals.

Without doubt, the extraordinary challenges posed by the global COVID-19 pandemic have refocused attention on CKN within Queensland Health and highlighted its mission to inform clinicians and support patient care. Consequently, although CKN marked a necessarily subdued 20th birthday because of the pandemic, kind words from clinicians and executives including the Director-General served as timely reminders that CKN's work remains immediate, relevant, and important within the state's public health system.

Not content to rest on our laurels, we have already begun to work with our managing supplier, EBSCO, to look and plan beyond the current pandemic. While this is no easy task in the circumstances, we are proud of what has been achieved in twenty years to date and continue to be excited for the future of CKN.