Queensland Health

AKC2026

Information Stream overview

- The Advancing Kidney Care 2026 (AKC2026) Information Stream was formed in July 2019 to provide advice on how our information systems and digital platform can capture and report information to allow the measurement of patient care pathway steps, their outcomes, and to support service planning and improvement.

> The aim of the AKC2026 Information Stream is to develop a digitally integrated kidney care data source that is secure, standardised, and used for improvement.

- The objectives of the AKC2026 Information Stream are to:
  - Leverage routine information collections, which are stored and defined consistently to optimise the use and reuse of data for patient care and system improvement.
  - Develop mechanisms to interrogate data and generate clinical and business intelligence.
  - Collate and integrate statewide kidney data across the healthcare spectrum that can be used to: improve patient outcomes; determine effective kidney care practices and services; facilitate system improvement; and support service planning.
- The principles of the AKC2026 Information Stream are to: collaborate with clinical, consumer, information management, and ICT experts; practice lean methods; and leverage existing products and resources where possible.
- The AKC2026 Information Stream delivered the Advancing Kidney Care Information Solution (AKCIS), including reports on acute kidney injuries, kidney transplants and dialysis. More information on AKCIS is available here.

Annual work packages

- The work to develop AKCIS was divided into datasets, starting with Set 1 in 2019-2020, which included:
  - Formation of the Information Stream and the Information Stream Advisory Group
  - Consultation on customer needs and publication of the Business Requirements
  - Gap analysis and capability evaluation to determine Set 1 scope
  - Establishment of AKCIS platform and secured technical resources
  - Acquisition of Set 1 data sources through custodian approval
  - Definition of a conceptual and logical information model
  - Specification of data elements and derivations through a Data Dictionary
  - Design, development, and testing of database models, fields, loads and derivations
  - Implementation of access security and governance model and processes
  - Design, development, and testing of Power BI reports for acute kidney injury (AKI)
  - Design, development, and testing of Power BI reports for kidney transplants

- Development and implementation of online access application process for users
- Publication of the AKCIS QHEPS site with user materials
- The work in 2020-2021 included the finalisation of Set 1 and the delivery of Set 2:
  - Design, development, and testing of Power BI reports for kidney dialysis
  - Design, development, and testing of Power BI reports for after-hours dialysis support
  - Consultation on customer priorities and capability evaluation to determine Set 2 scope
  - Implementation of improvements in functionality on all AKCIS reports
  - Implementation of more flexible drilling hierarchical displays on all AKCIS reports
  - Implementation of additional objects and filters on the Kidney Transplants and AKI reports
  - Changed technical database structure and loading rules, improving data quality and handling
  - Streamlining of the security model for facility level reporting, resulting in a single AKCIS application for all users
  - A Clinical Analytics Framework based on the lessons from AKC2026, recommending processes and resources that could be used by similar programs in the future
  - Updates to survey responses for After-hours dialysis support report and addition of new filter and visual objects to the report page
  - Changed scope of facilities on the Kidney Transplant report
  - AKCIS reports update process fully automated
  - Developed AKCIS data quality report
- The work in 2021-2022 will focus on expanding the information provided in AKCIS, known as Set 3 and will include:
  - development and implementing a sustainable unique patient identification solution
  - reviewing and redesigning database architecture to cater for new sources
  - acquiring and reporting on public pathology chronic kidney disease data
  - acquiring and reporting on deaths data
  - reporting critical care dialysis data
  - establishing direct database access for selected customers
  - developing methods and data sources to be able to report in the future on:
  - advance care planning
  - distances patients travel
  - dialysis access
  - ongoing maintenance and management
  - support for the Kidney Service Quality Improvement Working Group
- See the AKC2026 Information Stream Plan 2021-2022 for more detail.

For further information please contact us at AKC2026IS@health.qld.gov.au, or visit: https://qheps.health.qld.gov.au/caru/priority-projects/advancing-kidney-care-2026/information-stream