Indigenous health: effective and sustainable health services through continuous quality improvement

Ross S Bailie, Damin Si, Lyn O'Donoghue and Michelle Dowden

A recent editorial in the *Bulletin of the World Health Organization* called for international agencies and ministries of health to work together to implement integrated quality improvement processes in clinical practice, with the aim of scaling up delivery of health interventions to meet the Millennium Development Goals.[1] The current Australian Government program, Healthy for Life,[2] provides a mechanism for doing this in primary care services for Aboriginal and Torres Strait Islander peoples. With funding of $102.4 million over 4 years, the program aims

> to enhance the capacity of over 80 Aboriginal and Torres Strait Islander primary health care services to improve the quality of child and maternal health services and chronic disease care, and to improve the capacity of the Indigenous health workforce.[2]

In addition to other experience and resources, the Healthy for Life program has drawn on the tools, processes and principles developed through an action–research project in the Northern Territory — the ABCD project. "ABCD" originally stood for Audit for Best practice in Chronic Disease. It has come to represent a structured collaborative approach to improving health services, with potential application in a variety of primary care contexts. The ABCD research project is a collaborative initiative of the Cooperative Research Centre for Aboriginal Health, initially funded by the Australian Health Ministers' Advisory Council, which brought together federal, state and territory government health agencies; Indigenous community-controlled health organisations; and research agencies. The project commenced in 12 Indigenous community health centres in the Top End of the Northern Territory in 2003. Its commencement was independent of, but more or less in parallel with, various other initiatives contributing to the development of the Healthy for Life program.

Here, we discuss some of the key strengths of the approach we have developed, and the evidence and values base for continuous quality improvement (CQI) in this context.
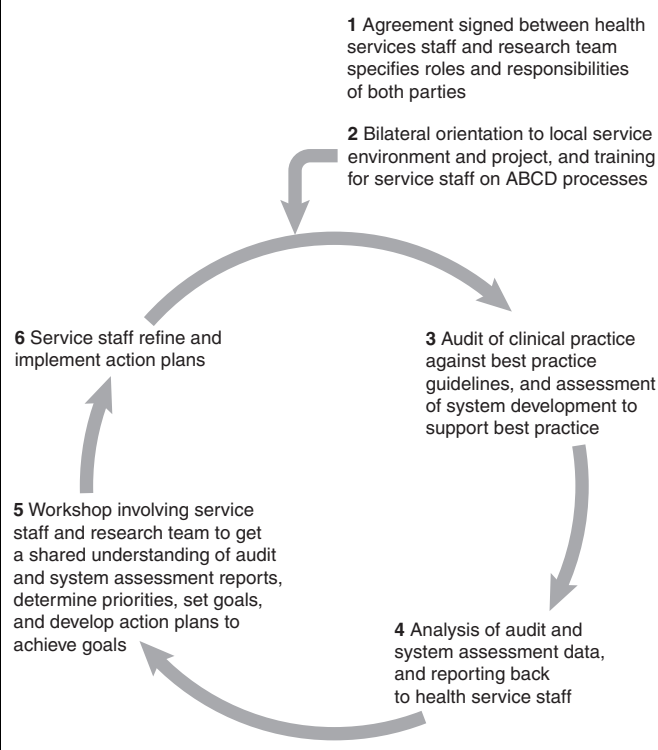
Continuous quality improvement and action research

In general, CQI aims to facilitate ongoing improvement by using objective data to analyse and improve processes.[3,4] Emphasis is placed on efficient and effective functioning of organisational systems.[5,6] CQI involves an ongoing cycle of gathering data on how well organisational systems are functioning, and developing and implementing improvements. An essential starting point is systematic and objective assessment of performance and of the systems supporting good performance.[7] Good quality information is needed, so that goals can be set and strategies developed for improving key areas. An emphasis on participation by the people being studied, and flexibility in the approach, makes modern CQI very similar to action research, both being characterised by "cyclical activities involving examination of existing processes, change, monitoring the apparent effects of the change and further change".[8]

ABSTRACT

- The Australian government's Healthy for Life program is supporting capacity development in Indigenous primary care using continuous quality improvement (CQI) techniques.

- An important influence on the Healthy for Life program has been the ABCD research project. The key features contributing to the success of the project are described. The ABCD research project:

  ➢ uses a CQI approach, with an ongoing cycle of gathering data on how well organisational systems are functioning, and developing and then implementing improvements;

  ➢ is guided by widely accepted principles of community-based research, which emphasise participation; and

  ➢ adheres to the principles and values of Indigenous health research and service delivery.

- The potential for improving health outcomes in Aboriginal and Torres Strait Islander communities using a CQI approach should be strengthened by clear clinical and managerial leadership, supporting service organisations at the community level, and applying participatory-action principles.

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1 Outline of the ABCD approach

1 Agreement signed between health services staff and research team specifies roles and responsibilities of both parties

2 Bilateral orientation to local service environment and project, and training for service staff on ABCD processes

3 Audit of clinical practice against best practice guidelines, and assessment of system development to support best practice

4 Analysis of audit and system assessment data, and reporting back to health service staff

5 Workshop involving service staff and research team to get a shared understanding of audit and system assessment reports, determine priorities, set goals, and develop action plans to achieve goals

6 Service staff refine and implement action plans

The ABCD project and continuous quality improvement

Features of the ABCD CQI approach (Box 1) include:

• *Assessing clinical performance across the scope of best-practice services for chronic illness care rather than selected ("indicator") services.* This is done by auditing records of service delivery and clinical and laboratory findings in a sample of patient records. For example, the diabetes audit covers over 20 services specified in widely accepted best-practice guidelines, and the preventive services audit covers about 10 services specified in guidelines for preventive care for a generally well adult (eg, the 2-yearly Adult Health Check for Aboriginal and Torres Strait Islander people).[9,10]

• *Structured assessment of health centre systems to support best practice.* This is based on the Assessment of Chronic Illness Care scale,[10,11] which analyses the status of key aspects of primary care service systems (eg, design of work flow and staff roles and responsibilities; arrangements for working with other agencies and community members; information systems; systems to support clinical best practice (including the availability of guidelines and access to specialist advice).

• *Emphasising participation in all aspects of the approach.* The ABCD approach is guided by widely accepted principles of community-based research, which stress the importance of partnerships (Box 2).[12]

Trends over two ABCD CQI cycles to date have shown improvements in primary care systems (eg, business plans specifying roles, responsibilities and goals for diabetes care); in adherence to best-practice clinical guidelines (eg, an increased proportion of people with diabetes having regular testing of glycated haemoglobin [HbA_{1c}] levels); and in intermediate health outcomes (eg, normalisation of HbA_{1c} levels).[13]

Why continuous quality improvement works

Evidence of the effectiveness of modern CQI approaches in the manufacturing,[14,15] service[16] and health care[17,18] industries abound. The most substantial experience of CQI is in the manufacturing and business sectors, and research in these areas highlights leadership, people management and customer focus as components of CQI interventions that strongly predict performance.[19] People management appears to be particularly important in the service sector,[17] including a commitment to increasing employees' knowledge of, and empowerment to engage in, CQI processes.[15,16] The intensity of interventions has been shown to explain a significant proportion of the variation in performance,[16] with greater benefit likely if interventions are implemented as designed.[17] Furthermore, international comparisons suggest a degree of culture specificity in what works where.[15]

In the clinical context, research suggests CQI approaches are most effective when they focus on organisational priorities; there is good engagement of high-level managers; the intervention is clearly formulated; the organisation is ready for change; there is a relationship of trust with practitioners; there is revision of professional roles; there are adequate information systems; and the external environment is supportive.[19,20]

The strength of the evidence of the effectiveness of CQI is limited by the quality of research study designs, the extent to which confounders are measured and controlled for in data analysis, and the heterogeneous nature and varying intensity of CQI interventions.[20] However, the CQI concept has intuitive appeal. Proponents of CQI believe that while the language may change, the tools and vision of CQI will persist because they are

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2 Principles of community-based research guiding the ABCD research project[12]

• *Recognise each participating health service team as a distinct unit* with common interests and needs.

• *Build on strengths and resources within the health team and the community.* These may include skills and assets of individuals, networks of positive relationships and social structures, and processes that contribute to the ability of the health team and community to work together to improve health.

• *Facilitate collaborative partnerships in all phases of research.* Our goal is for all parties to participate equally in the research process.

• *Integrate knowledge and action for mutual benefit of all partners.* We aim to build a body of knowledge that can be integrated with local health team and community efforts to address their issues of concern.

• *Promote a co-learning and empowering process that attends to social inequalities.* We place an emphasis on reciprocal transfer of knowledge, skills, capacity and power. For example, the research team gains a deeper understanding of the context and challenges of the local health service, and the health team gains skills in collecting, analysing and acting on data collected.

• *Use a cyclical/iterative process.* This includes partnership development and the ongoing refinement of the cycle outlined in Box 1.

• *Address health issues from positive and ecological perspectives.* We emphasise achievements in service delivery and health outcomes, and encourage consideration of biomedical, social, cultural and political factors as determinants of health and disease.

• *Disseminate findings and knowledge gained to all partners.* We aim to share research findings in language that is understandable and in a way that respects all contributions to the process and informs action to improve health.   ◆

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adaptive.[18] It is this positive view of the promise of CQI that is perhaps most supportive of the call for leading international and national health agencies to implement integrated CQI processes in clinical practice.[1]

Continuous quality improvement and Indigenous health

Key features of modern CQI approaches make them well suited to the Indigenous Australian setting and to the principles of Indigenous research and service delivery. The participatory approach and the customer focus of CQI, and the combination of scientific and humanistic professional values,[15,16,19] adhere to the principles and values of Aboriginal and Torres Strait Islander peoples, as expressed in recent national statements on research[21,22] and cultural respect.[23] In these same statements, the emphasis given to tackling underlying causes (eg, human resource capacity and social conditions, including unemployment), to capacity building (including, specifically, community capacity to understand and use data), and to improving outcomes is also central to CQI,[18,19] as is the development of positive models and a culture of self-evaluation rather than blame.[1] CQI also provides a structure to refine and re-invigorate programs to promote sustainability.[13]

Early evidence of the acceptability of CQI approaches and their impact on Indigenous primary care services is emerging from our recent and ongoing research.[10,13] Comments by stakeholders reinforce our perceptions (Box 3).

3 Stakeholders' perspectives

Aboriginal Health Worker

"[Generally] when programs come into the organisation, the information goes to management levels [which] have always been responsible for collecting [data collection] and providing the information required. Whereas, the H4L [Healthy for Life] and ABCD processes involved all staff perspectives — all the way from drivers, clinical staff, management and executive — and having input in all stages of the project activities.

The project gave all staff the opportunity to have involvement and participation into a different field of work . . . the way we do our work . . . opening up our eyes to different evaluations when entering data, and to see the results . . . what is happening and where the changes can be made."

Clinic Coordinator, Wurli Wurlinjang Health Service, Katherine

Health Centre Manager

"The project has been able to give us a gentle nudge to look at the work protocols and practice in the clinic.

Each year the audit feedback showed where our areas of practice were working well and not working so well, and where to set goals/targets for improvements in areas needing more attention to improve services for our clients."

Barunga Community Health Centre, Sunrise Health Service

Chief Health Officer

"All health practitioners aim to be self-reflective in their practice. In the NT, we know we need to do more to address chronic disease. ABCD has supported health practitioners by providing a framework to think through our approach to chronic disease at a health centre level, information to assess how we are going, and some training and support to make appropriate changes. It has also allowed practitioners to learn from each other. In this way, it has strengthened implementation of the NT Preventable Chronic Disease Strategy and the chronic disease strategies that all health service organisations in the NT have in place. ABCD is a great example of effective researcher–practitioner–manager–policymaker collaboration."

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Notwithstanding this, there remain significant challenges for the engagement of health services in CQI activities. These include ongoing heavy demands for acute care services (and service orientation towards acute care), a preoccupation of middle-level management with staffing and budgets ahead of service quality and outcomes, and limited human resources in primary care services. The Healthy for Life program should assist in overcoming some of these challenges. Ongoing CQI initiatives for health improvement in Aboriginal and Torres Strait Islander communities should be strengthened by applying participatory-action principles, providing strong clinical and managerial leadership for a CQI culture at all levels of health service organisation and management, and developing capacity to support community-level service organisations.

Competing interests

None identified.

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