Continuous Quality Improvement in Primary Health Care: What does it mean?

Dr Barbara Nattabi

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE
Presentation objectives

• To describe CQI and why it is necessary
• To present the CQI initiatives being implemented in Aboriginal and Torres Strait Islander primary health care services in Australia
• To explain the history of One21seventy and the ABCD Research partnership and what they are currently doing across Australia
What is the problem, challenge, issue?

- Increase in chronic disease/conditions: cancer, diabetes, heart disease, asthma, HIV/AIDS, depression, physical disabilities. Chronic obstructive pulmonary disease: a ‘tsunami of chronic disease’:
- Cause over half of global disease burden
- All these conditions require ongoing management over a period of years/decades
- They affect the social, psychological and economic dimensions of a person’s life and also the society
- Many of above conditions affect Aboriginal people with a wide gap in life expectancy, morbidity and mortality between Aboriginal and non-Aboriginal people
## Burden of Disease and Injury

<table>
<thead>
<tr>
<th></th>
<th>Indigenous people vs. non-Indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prevalence of diabetes</strong></td>
<td>2-4 times higher</td>
</tr>
<tr>
<td>(de Courten et al 1998)</td>
<td></td>
</tr>
<tr>
<td><strong>Hospitalization rates</strong></td>
<td>10-15 times higher</td>
</tr>
<tr>
<td>for diabetes</td>
<td></td>
</tr>
<tr>
<td>(Edwards et al 2001)</td>
<td></td>
</tr>
<tr>
<td><strong>Death rates due to diabetes</strong></td>
<td>27-35 times higher</td>
</tr>
<tr>
<td>(35-54 years)</td>
<td></td>
</tr>
<tr>
<td>(AIHW 2004)</td>
<td></td>
</tr>
</tbody>
</table>
Burden of disease by gender

- Intentional injuries: RR 3.9
- Unintentional injuries: RR 2.4
- Cancers: RR 1.7
- Diabetes: RR 4.4
- Chronic respiratory disease: RR 2.5
- Mental disorders: RR 1.7
- Cardiovascular disease: RR 4.5

*Total Australian rates age-standardised to the Indigenous population
RR Indigenous Australian to total Australian rate ratio

Figure v: DALY rate per 1,000 for the leading broad cause groups by sex, Indigenous and total Australian population, 2003
Several issues

• Social determinants of health
• Access to health care
• Quality of health care
  • Workforce and infrastructure issues
  • Service and clinical leadership
  • Health care processes that are well organised, efficient, effective and safe (teams, protocols, review, records and checking)
Preparing a healthcare workforce for the 21st century (WHO 2005)

• Need in change of focus of care to ‘patient-centred’ care
• Best evidence
• Engagement of managers and practitioners
• Be clear about outcomes/goals: Know which changes will lead to improvements
• Know how to evaluate their efforts + translate evidence into practice
• Good quality data on systems, processes and outcomes
• Raising general standard of care
• No blame
• Incremental improvements and continuous steps
WHO 2005: The Innovative Care for Chronic Conditions Framework

**Positive policy environment**
- Strengthen partnerships
- Support legislative frameworks
- Integrate policies
- Provide leadership and advocacy
- Promote consistent financing
- Develop and allocate human resources

**Community**
- Raise awareness and reduce stigma
- Encourage better outcomes through leadership and support
- Mobilize and coordinate resources
- Provide complementary services

**Health care organization**
- Promote continuity and coordination
- Encourage quality through leadership and incentives
- Organize and equip health care teams
- Use information systems
- Support self-management and prevention

**Links**

**Patients and families**

**Better outcomes for chronic conditions**
Primary health care and population health

• The late Professor Barbara Starfield and others strongly believed that primary health care, not specialised care, was/is associated with better care, more appropriate care, better health and much lower health costs and greater equity in health

• Improvement in primary health services has been shown to have a major impact on population health

• Particularly primary health care has contributed to narrowing the life expectancy gap between Indigenous and non-Indigenous peoples in US and New Zealand (Griew 2008)

• PHC has to be well planned, locally coordinated, supported by a competent workforce, and able to engage the local community in action for health care
## Outcomes of improved diabetes management

<table>
<thead>
<tr>
<th>Outcome Type</th>
<th>1 percentage point reduction in HbA1c</th>
<th>25-30% reduction in micro-vascular complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in HbA1c</td>
<td>10 mm Hg reduction in blood pressure</td>
<td>37% reduction in micro-vascular complications;</td>
</tr>
<tr>
<td>UKPDS 38. BMJ 1998; 317(7160):703-713</td>
<td></td>
<td>44% reduction in strokes;</td>
</tr>
<tr>
<td>Improved blood lipid control</td>
<td></td>
<td>32% reduction in deaths</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43% reduction in death</td>
</tr>
</tbody>
</table>
The Lowitja Institute held a National Conference on CQI in Aboriginal and Torres Strait Islander Primary Health Care themed: 'CQI for everyday and everybody'

May 2012: Alice Springs, Northern Territory
What is CQI?

• … the use of good quality data about systems, processes and outcomes to assist health care teams to develop and implement plans for improving the quality of care provided to patients and to communities, and to do this in a cyclical and ongoing approach: Professor Ross Bailie, Menzies
Quality Assurance:
Refers to the activities necessary to ensure that a module, component or system conforms to established technical requirements.

Examples:
“Cold chain” measurements
Steriliser monitoring
Accreditation standards compliance

Continuous Quality Improvement:
An approach to quality management that builds on traditional quality assurance methods by emphasizing the organization and systems.
A focus on "process" rather than the individual, recognizes both internal and external "customers" and promotes the need for objective data to analyse and improve processes
## Accreditation vs. CQI

<table>
<thead>
<tr>
<th>Accreditation:</th>
<th>CQI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Done by an external group</td>
<td>Done internally</td>
</tr>
<tr>
<td>Done by professional group separate from Govt</td>
<td>Cyclical</td>
</tr>
<tr>
<td>According to OATSIH, there are 102 AMSs that have received clinical accreditation and 38 have received organisational accreditation</td>
<td>More reflective, deeper and gets to issues that may not be discovered by the accreditation process. Numbers not available</td>
</tr>
<tr>
<td>Service who had received accreditation could not determine if it had necessarily improved quality of care: more about improving the structures and processes which are important for CQI</td>
<td>Allows facility to be in control make sure that system is working and identifying things that needs to change</td>
</tr>
</tbody>
</table>
CQI

- Must be implemented systematically: must have a system: for every patient, every time
- Move from ‘what is the matter with you?’ to ‘what matters to you?’: needs of the community as expressed by them
- All staff expected to monitor the quality of service. Active followership: a personal commitment to courageously contribute to the collaborative team environment: not just the boss, manager
- The need to speak up appropriately
- Keep in mind: what is in the best interest of the community.
- Multilevel CQI system: macro, meso and microsystem (health system)
- Build a positive and supportive culture
- Make implementation everybody’s business
- Set goals for what quality you want to achieve
- Develop and refine system
CQI Involves

- A commitment to work towards improvement
- A whole of team approach
- Data collection and analysis
- Leadership
- Reflective learning
- Goal setting planning and review
CQI tools

- Plan Do Study Act (PDSA): Please Do not Say it Again
- Six Thinking Hats
- SWOT
- Nominal techniques
- Flowcharting
- Brainstorming
- Others
- Tools can be used together
Initiatives across Australia: 2002 onwards

- **Continuous Improvement Projects (CIP)**
  - Two funding rounds 2002/2003 and 2004/2005
  - 13 ACCHS were involved
  - Chronic disease

- **ABCD/ABCDE: Audit for Best Practice in Chronic Disease/Extension**
  - started in 2002
  - led on to One21seventy (187 centres by May 2012) and ABCD Research Partnership

  - PDSA cycle
  - Over 100 primary care services: mothers, babies children, people with chronic diseases and men
Initiatives across Australia: 2002 onwards

- **APCC: Australian Primary Care Collaboratives (until June 2012)**
  - 1200 general practices across Australia
  - Model of care: patient centred, supported by family, self management key
  - Six ways of thinking: fall forward; steal shamelessly/share generously; think differently; bring data; herd health; team work; collate and compare data
  - Use of rapid PDSA cycles and Use of the PEN CAT
  - Diabetes, coronary heart disease, chronic obstructive pulmonary disease

- **STRIVE (STI in Remote communities: ImproVed and Enhanced primary health care)**
  - NHMRC Project: cluster randomised control trial 2009-2013
  - Improvement in STI testing and management using CQI processes
  - Across 3 jurisdictions and 65 remote communities: WA (8), NT (Top End (28) and Central (28), FNQ (3): 16-34 years olds
Initiatives across Australia: 2002 onwards

  - Improve quality of care for patients: identifying women in the practice who need a pap smear, check for allergy and smoking status recording
  - Identify patients at risk: patients who haven’t had certain tests or investigations done
  - Maximise business potential: find out those eligible for health check and can claim items e.g. MBS items

- **Health Tracker Decision Support System**
  - 40 GP practices and 20 ACCHS NSW and Queensland: management and prevention of CVD among clients in primary health care services
  - n=42,495
  - Provide electronic support for cardiovascular disease management: assesses cardiovascular risk and provides direct treatment advice
Background to the ABCD Project 2002-2005

- Lack of consistent measures of quality of care
- Impact of interventions is often not sustained
- Potential of modern Continuous Quality Improvement (CQI) methods in PHC
- ABCD Project was implemented in 12 Aboriginal Community controlled health centres in NT Top End
- Initial focus on the prevention and management of chronic disease
- Broadened to include maternal and child health care, primary mental health care, rheumatic heart disease
Aims of the ABCD Extension Project 2005-2009

- Built on the ABCD Project (2002-2005)
- Wider implementation of initial project
- Additional tools
- Integrate process into routine activity
- Enhanced information system
- Research focused on uptake and sustainability
- 69 health centers in 4 states/territories: NSW, Queensland, NT, Western Australia
- Rural/remote and urban, community controlled, government, non-government, general practice
ABCD Approach

- Evidence base
- Indigenous health research values and Ethics
- Quality improvement
- Indigenous Health Research Priorities
- Participatory Action Research
- Primacy of local CQI purpose

**STEP 1:** Signed Agreement

**STEP 2:** Training/ Orientation

**STEP 3:** Audits, system assessment

**STEP 4:** Participatory Interpretation.
Data analysis & report preparation

**STEP 5:** Action Planning.
Clinic feedback, workshop & goal setting for system changes

**STEP 6:** act
Implement changes
One21seventy
National Centre for Quality Improvement in Indigenous Primary Health Care

The name reflects the centre’s commitment to increasing life expectancy for Aboriginal and Torres Strait Islander people beyond One year in infancy, 21 years in youth and seventy years in the lifespan.
One21Seventy

- Action research completed
- Services wanted ongoing CQI support
  - Training of local staff in CQI
  - Web database for data entry and reports
  - National and regional benchmarking
  - Refinement and updating clinical audits
- Establishment of not for profit organisation
  - Supported by MSHR
  - Aim to be financially independent
One21seventy

- Not-for-profit entity administered through the Menzies School of Health Research
- Designed to assist Indigenous primary health care centres to better understand the quality of their health services and improve their health outcomes through the implementation of CQI processes
Health Centres using One21seventy

TOTAL 181
One21seventy Clinical Audit Tools

• Designed to **measure** data collected from the participating health services

• Provide them with information on their health service

• Health centres can compare their results with other health services at Cluster, State/Territory and National benchmarks.

• The available clinical audit tools (supported by protocols) are:
  • Child health (3 months - <15yrs)
  • Maternal health
  • Mental health
  • Preventive services
  • Rheumatic heart disease
  • Vascular & metabolic syndrome management (Diabetes type II, Coronary heart disease, Renal disease and Hypertension)
  • Health Promotion
One21seventy Clinical Audit Tools

• Tools continued:
  • Based on evidence / best practice
  • Use a sample or total population
  • Collect data including scheduled services and clinical indicators
  • Reviewed annually
  • Used alongside a protocol
• Health and Community Survey
• Systems Assessment Tool
Goal Setting and Action Planning (Stage 5)

• Based on the results from the clinical audit and the System Assessment
• Set realistic measurable goals and strategies
• Consider the available resources
• Set time frames for regular reviews
• Decide who is responsible for tasks
Aim & Objectives

• Through collaborative research, implement large scale change in PHC systems to improve quality of care & health outcomes for Aboriginal & Torres Strait Islander population.

• understand variation in quality of care between health centres & regions

• identify strategies that have been effective in improving the delivery of care

• work with partners to disseminate & translate findings into effective & successful strategies
ABCD Research Partnership

- Non-hierarchical, tiered structure: regional steering committees (RSCs) facilitate local research; Project Coordinating Centre (PCC) facilitates learning across regions
- Highly committed partners & local champions with common set of achievable goals
- Project protocols signed off
- Participatory research approach fosters trust, reciprocity & respect
- Research can be initiated & led by health services, making it relevant & transferable
- Building local research capacity
- Systems focused, leading to sustainability of change
- Large scale change across all participating jurisdictions
- Opportunity to develop coherent theoretical framework for evaluation of complex, large scale intervention
## Impact of ABCD on Diabetes Care

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diabetes Services</strong></td>
<td>31%</td>
<td>35%</td>
<td>54%</td>
</tr>
<tr>
<td><strong>HbA1c measurement</strong> (within 6 months)</td>
<td>41%</td>
<td>61%</td>
<td>74%</td>
</tr>
<tr>
<td><strong>HbA1c control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;7%</td>
<td>19%</td>
<td>21%</td>
<td>28%</td>
</tr>
<tr>
<td>&lt;8%</td>
<td>37%</td>
<td>40%</td>
<td>46%</td>
</tr>
<tr>
<td>Mean HbA1c</td>
<td>9.3%</td>
<td>8.9%</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

Bailie et al. BMC Health Services Research 2007
Facilitators of CQI

- Funding
- Leadership and management/governance
- Champions within the service, region and national levels
- Organisational capacity and culture
- Technical support
- Workforce capacity: staffing and resourcing
- Active participation of staff and ownership
Barriers of CQI

- Lack of funding
- Poor leadership and management/governance
- Lack of champions within the service, region and national levels
- Low organisational capacity and culture
- Technical support
- Workforce issues: staffing high turn over, recruiting and retaining staff. Work over load, time issues
- Lack of ownership, lack of interest, poor motivation
Summary

• CQI is a journey
• CQI is everybody’s business
• CQI at primary health care level contributes to improved quality of care among Aboriginal and Torres Strait Islander Health clients and patients
• It takes time to establish systems and processes
• Build experience, staff capacity and policy support
• Action research informs practice and policy which informs further research…..