Continuous Quality Improvement (CQI): Moving beyond point-in-time evaluation

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Learning Objectives

- To understand how CQI differs from point-in-time evaluation
- To learn what CQI evaluation can look like
- To learn more about how the PRC uses CQI in it's work with agencies
- To understand the benefits of CQI
- To understand the challenges associated with CQI

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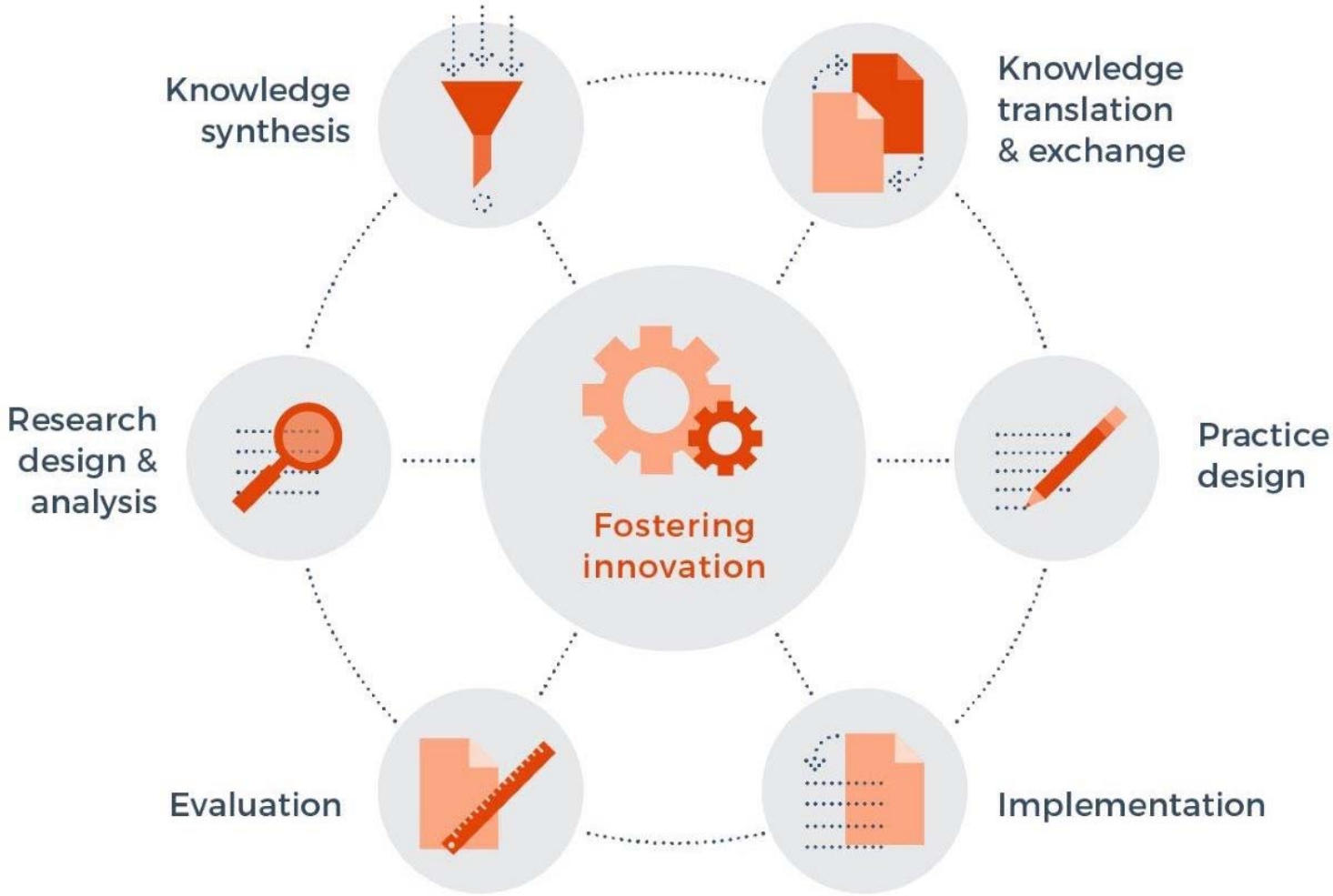
The Parenting Research Centre is a non-government organisation whose goal is to help parents raise happy and healthy children.


Knowledge synthesis
Knowledge translation & exchange
Research design & analysis
Fostering innovation
Practice design
Evaluation
Implementation

Our goal

Build the capacity of child and family support organisations, health, and education services in achieving the sustainable implementation infrastructure and systemic change necessary for the full and effective implementation of evidence-informed practices and programs

. . . to improve outcomes for families and children

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How we work

Purveyors

Intermediary organisation

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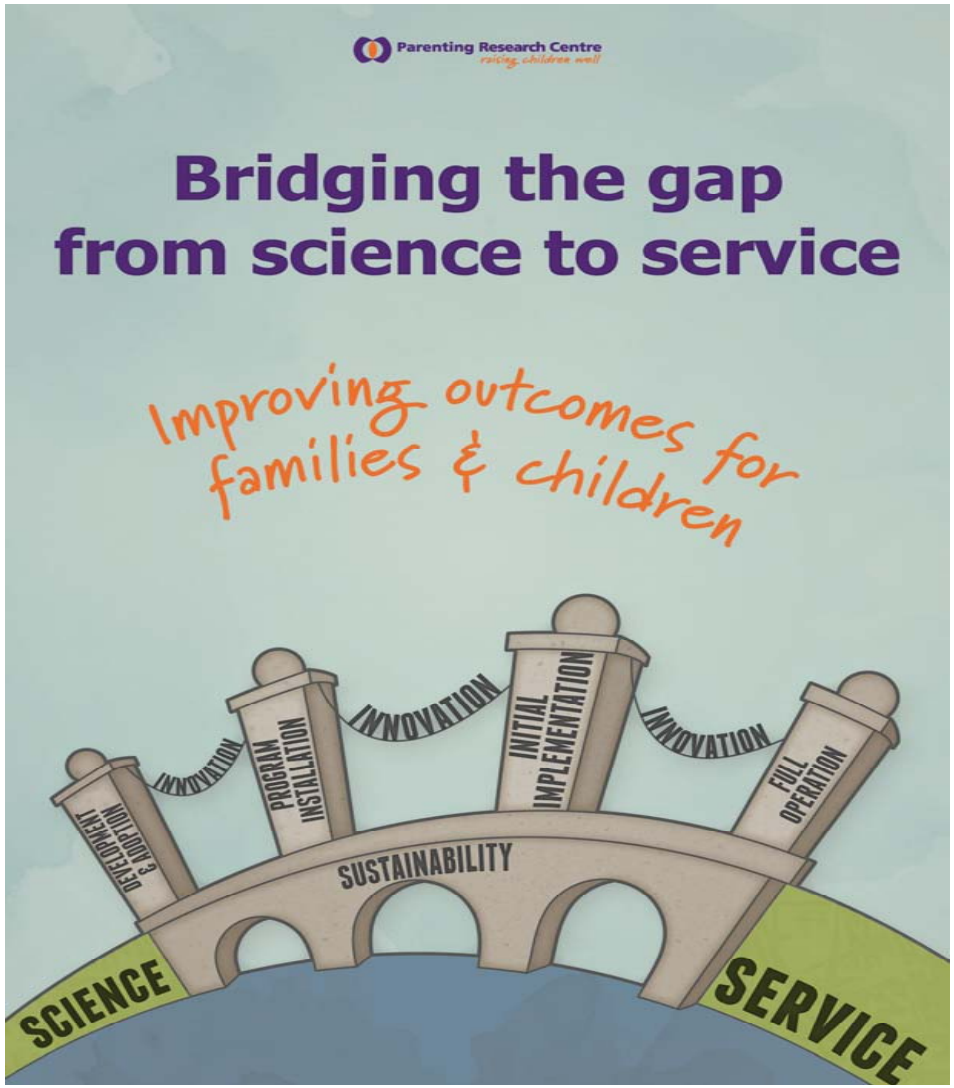
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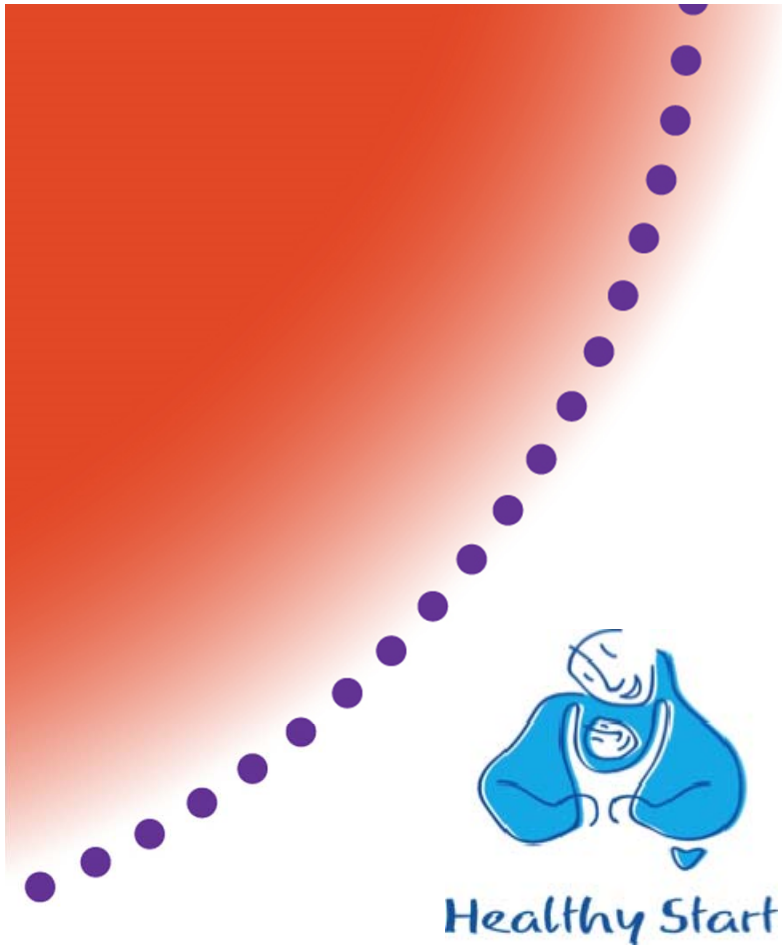
Bridging the gap from science to service
Improving outcomes for families & children
DEVELOPMENT & ADOPTION
INNOVATION
PROGRAM INSTALLATION
INNOVATION
INITIAL IMPLEMENTATION
INNOVATION
FULL OPERATION
SUSTAINABILITY
SCIENCE
SERVICE



Case study - Healthy Start

Healthy Start is a national initiative aimed at building the capacity of practitioners to better support the needs of families headed by a parent with learning difficulties.

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Only 12.5% of those who completed all 3 phases of training followed through to implementation.

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“Evidence” on effectiveness helps you select what to implement for whom

“Evidence” on these outcomes does not help you implement the program or practice

Fixsen & Blase (2008)

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Children and families cannot benefit from interventions they do not experience.

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Implementation Matters (from Fixsen et al., 2005)

Intervention – The What	Implementation: The How	
	Effective	Not Effective
Effective	Actual benefits	Inconsistent; not sustainable; poor outcomes
Not Effective	Poor outcomes	Poor outcomes; sometimes harmful

(Institute of Medicine, 2000; 2001; 2009; New Freedom Commission on Mental Health, 2003; National Commission on Excellence in Education,1983; Department of Health and Human Services, 1999)

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Implementation matters

". . . in some analyses, the quality with which the intervention is implemented has been as strongly related to recidivism effects as the type of program, so much so that a well-implemented intervention of an inherently less efficacious type can outperform a more efficacious one that is poorly implemented."

High drop outs, staff turnover, poorly trained staff, incomplete service delivery all associated with smaller effects

When program developer involved in delivery, larger effects

Lipsey et al (2010)

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Implementation matters

- 500 studies evaluated in five meta-analyses
- indicates that the magnitude of mean effect sizes are two to three times higher when programs are carefully implemented and free from serious implementation problems than when these circumstances are not present
- 59 additional quantitative studies found that higher levels of implementation are associated with better outcomes, particularly when fidelity or dosage is assessed.
- Context influences implementation

Durlak & DuPre (2008)

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Successful uptake of knowledge requires more than one-way communication and one-off training events

Instead requires genuine interaction among researchers, decision makers, and other stakeholders

AND active, purposeful and planned implementation activities

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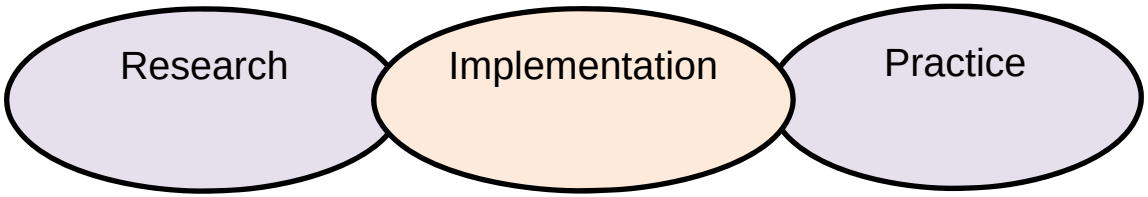
What is implementation?

Implementation is defined as a specified set of activities designed to put into practice an activity or program of known dimensions (Fixsen et al, 2005)

Implementation is a process with core components



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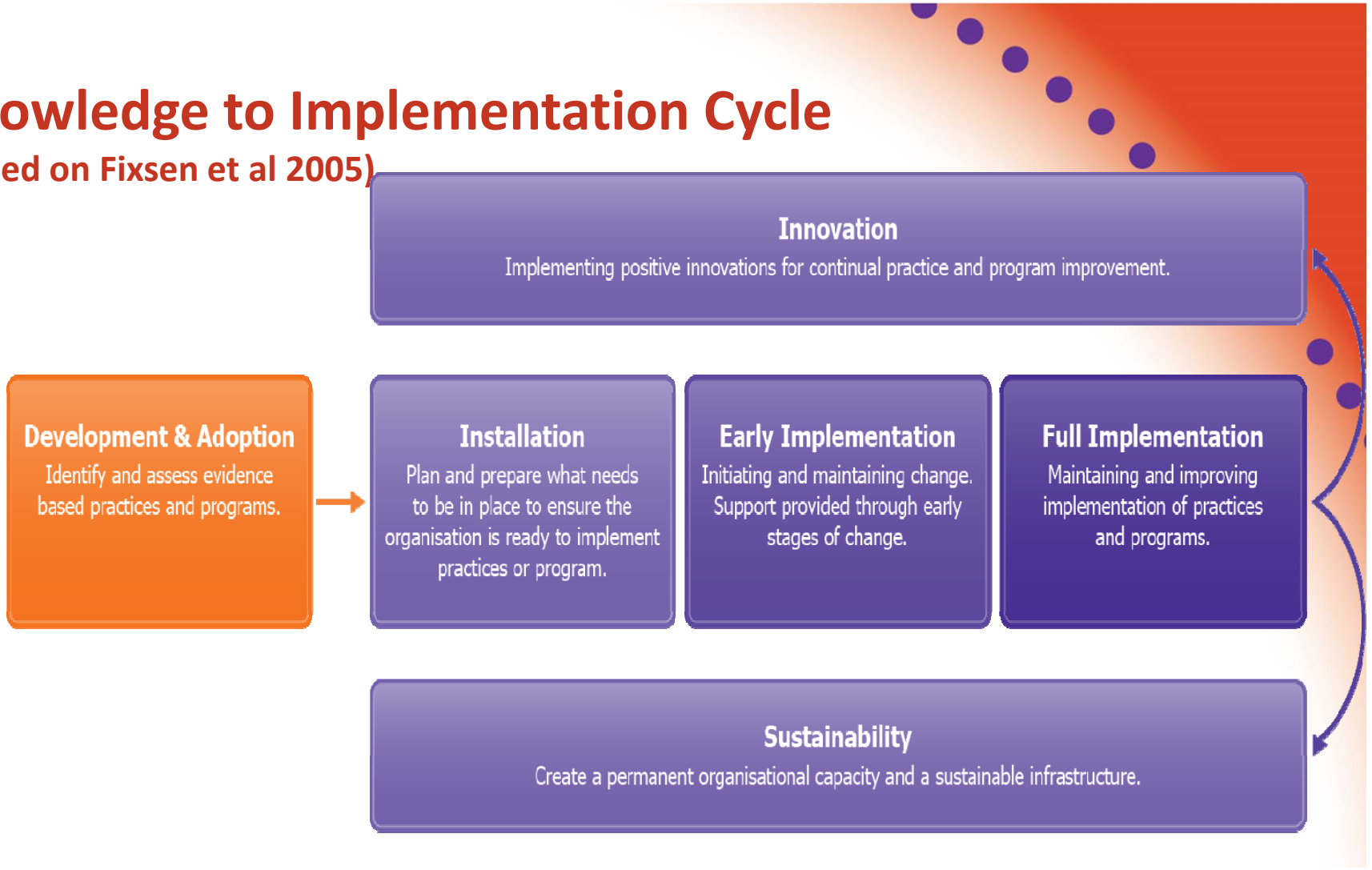
Knowledge to Implementation Cycle

(based on Fixsen et al 2005)



Stages of Implementation

Exploration– defining client group, consider which EBP/Practices, examine fit with current workforce, assess readiness for change, assesses feasibility, and looks at TA needs and resources.

Installation- Assure the availability of resources necessary to initiate the project, such as staffing, space, equipment, organizational supports, and new operating policies and procedures.

Initial Implementation- Organization learns the new ways of work, learns from mistakes, and continues the effort to achieve buy-in by those who will need to implement the project components. This stage is characterized by frequent problem-solving at the practice and program levels.

Full Implementation- Assure components are integrated into the organization and are functioning effectively to achieve desired outcomes. Staff have become skillful in their service delivery, new processes and procedures have become routine, and the new program or practice is fully integrated into the organization.

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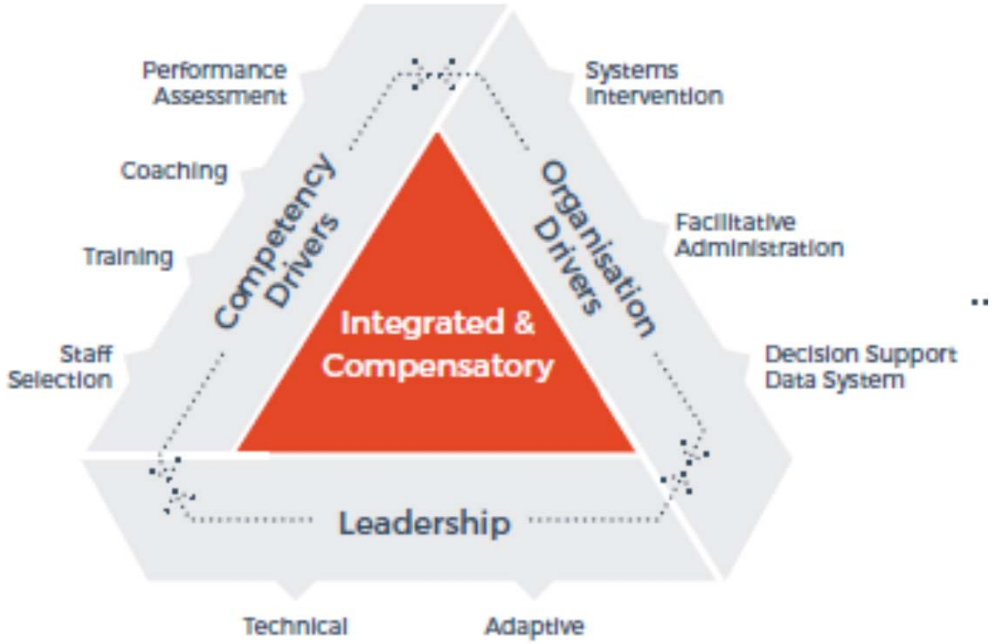
Implementation drivers



Adapted by Parenting Research Centre, 2016
Source: Fixsen, D. L., & Blase, K. A. (2008). *Drivers framework*. Chapel Hill: National Implementation Research Network, Frank Porter Graham Child Development Institute, The University of North Carolina

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Continuous Quality Improvement (CQI)

The continuous use of data to inform decision making about intervention adaptations and about additional implementation supports (e.g., training, coaching, changes to administrative processes, policies or systems) needed to improve both implementation of the intervention and outcomes associated with the intervention.

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CQI

- Born out of management/business field
- Ignore the saying “if it ain’t broke, don’t fix it”
- Ongoing experimentation
- Improves processes, not people
- Variation in processes leads to variation in outcomes
- Small incremental changes
- Most effective when it’s routinized
- Plan Do Study Act

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Implementation research methods

- hybrid effectiveness-implementation designs
- stepped wedge designs
- RCTs and C-RCTs
- time-series designs
- pre-post intervention group only

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CQI in program evaluation

CQI is a systematic approach to continuously collecting and reviewing data or information about the implementation of an intervention in order to identify opportunities to improve this implementation, with the end result of delivering better services to clients.

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CQI evaluation questions

- Intention to Reach
- Implementation: dose and fidelity
- Impact on outcomes

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CQI: Measuring Reach

Who is the agency or program targeting?

- Locations – geographical or site type (e.g., schools)
- Age of children?
- SES or other demographics?
- Risk or problem?

How well is the intervention reaching those who would most benefit from it?

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CQI: Measuring Implementation

Adherence/fidelity: extent to which a program is delivered as intended by its developers and in line with the program model (Breitenstein et al, 2010).

- prevent potentially false conclusions about intervention effectiveness
- help improve outcomes: guide implementation as intended
- give researchers confidence in attributing outcomes to intervention
- give practitioners confidence they are implementing the intervention properly
- give researchers confidence when synthesising studies

(Carroll et al, 2007)

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CQI: Measuring Implementation

- Do target families engage with the intervention (attendance, dosage, involvement, and perceived benefit)?
- Are implementers using the program with fidelity – as its intended?
- How effective are our implementation supports at improving or achieving fidelity?
- Barriers to implementation?
- Facilitators to implementation?

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CQI: Measuring Implementation

Structural fidelity: adherence to basic program elements

- Availability of staff, including supervisory staff
- Dose and direction
- Maintaining caseloads

Dynamic fidelity: quality and content of the client-therapist relationship

- Content delivered
- Staff-client interactions
- individualisation of treatment
- Emotional climate or therapeutic alliance

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Dynamic fidelity indicators for the implementation of the *Practice First* Model

	No	A little	Yes	Not sure/no response
*Principal 2: Families have a right to respect**				
Before the session I knew that the worker was going to come				
During the session the worker showed curiosity about our family, they asked us questions and showed interest in us				
During the session the worker listened to me				
During the session the worker asked me about my views and opinions				
During the session the worker used respectful language when talking to me				
During the session the worker used positive language when talking about me and my family				
During the session the worker was clear with me about any concerns that had been reported about my child, and advised me if new concern had come up				
During the session the worker talked about the good things I am doing for my child				
Principal 3: Appreciation of context				
During the session I felt like the caseworker was being honest with me about his/her concerns				

CQI: Measuring Implementation

Exposure : amount of an intervention that is offered to the participants in relation to the amount prescribed in the validated intervention model (the number of sessions or hours of programmed activity offered).

Adherence: extent to which the intervention was delivered according to the program developer's specifications for content.

Quality of delivery: pertains to practitioners/manager performance on dimensions that are thought to enhance delivery of the intervention (e.g., enthusiasm, style, ability to facilitate client participation, etc.).

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CQI: Measuring Outcomes

- Change in status
- Change in attitudes
- Change in skills
- Change in behaviour
- Change in achievement
- Change in attainment

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Types of data: Administrative records

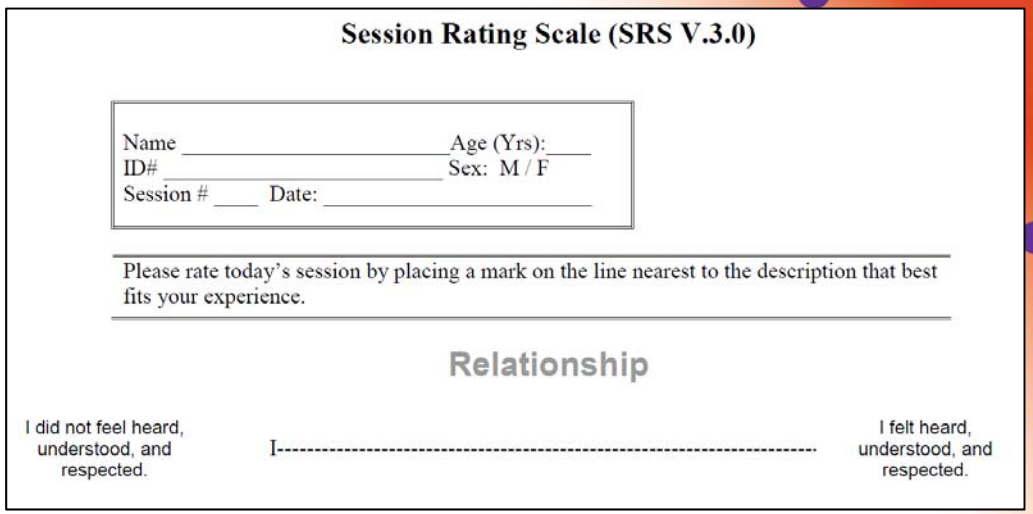
Reach	Dose	Fidelity
Number of parents attending sessions Participant characteristics (sex, age, cultural background, income, age at first birth, number of children) Proportion of intended clients who actually participate	Number of program components delivered Facilitator logs of sessions (e.g., hours of intervention exposure)	Number of staff participating in training Staff characteristics (sex, age, position/role, qualification, prior experience) Staff turnover (number engaged at commencement; number left since commencement) Service capacity when fully enrolled, case load of staff Number and duration of sessions delivered

Types of data: Questionnaires

Reach	Dose	Fidelity
Participant characteristics (sex, age, cultural background, income, age at first birth, number of children)	Parent-report of components received Ratings of participant engagement in sessions completed at the end of each session Observations of sessions	Staff satisfaction with training Self-evaluated skills following coaching sessions Parent-report of satisfaction Session Rating Scale Therapeutic Alliance Measure Observations of sessions

Types of data: Outcome measures

- Standardised measures
  - Stress
  - Confidence
  - Skill development
  - Behaviour
  - Attitudes
  - Health
- Outcomes Rating Scale
- Post-intervention client satisfaction
- Goal attainment



Session Rating Scale (SRS V.3.0)

Name _____ Age (Yrs): ____
ID# _____ Sex: M / F
Session # ____ Date: _____

Please rate today's session by placing a mark on the line nearest to the description that best fits your experience.

Relationship

I did not feel heard, understood, and respected. I---------- I felt heard, understood, and respected.

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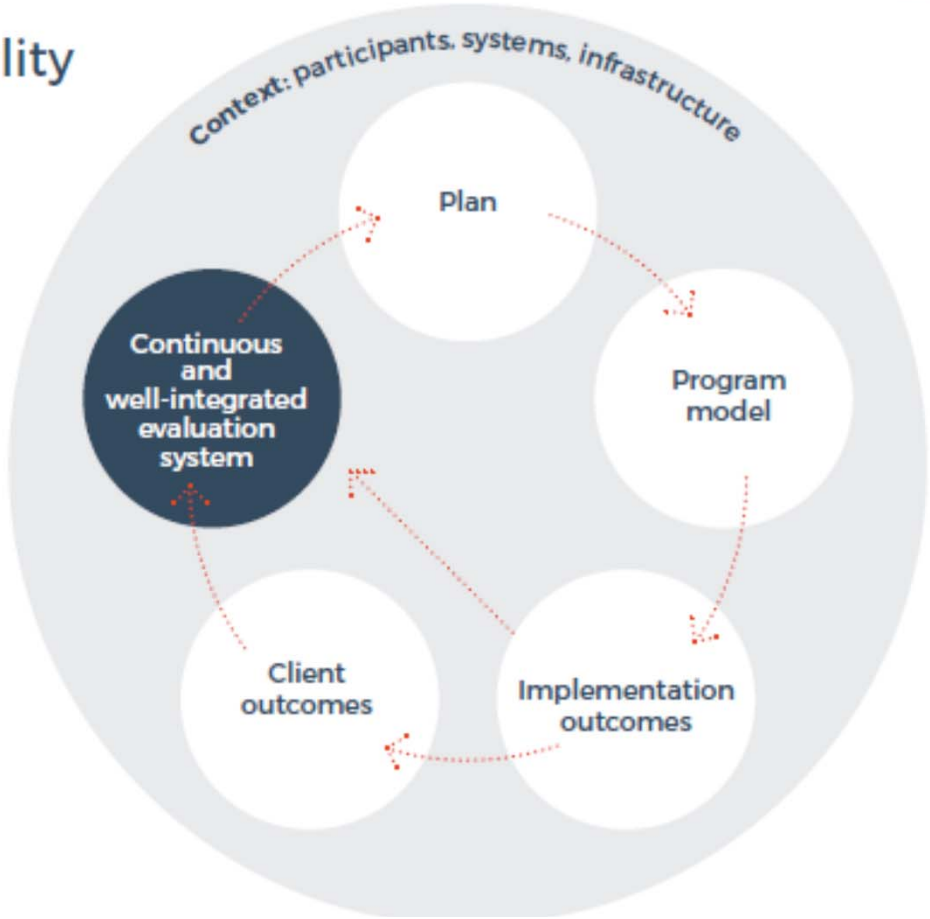
Process of CQI evaluation

Continuous quality improvement

PLAN, DO, STUDY, ACT



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Stages of Implementation Completion for *IFSS*

Site name: _____

Phase	Stage	Activity	Date	Agent Involved
Pre-Imp	Stage 1: Engagement	▪ Date PRC notified by DSS that agency will implement *IFSS* ▪ Date PRC meets with agency and DSS to discuss Service Offer ▪ Date agency accepts Service Offer ▪ Date initial Community Visit by PRC ▪ Date of follow up community engagement visit ▪ Date IFSS 'Orientation Pack' sent to agency		DSS, PRC, provider agency, community members
	Stage 2: Readiness Planning	▪ Date of first readiness assessment meeting ▪ Date readiness assessment completed ▪ Date agency-based IFSS supervisor on board		PRC, provider agency
	Stage 3: Installation	▪ Date Implementation Support Plan is signed off ▪ Date agreement on schedule for LIT meetings ▪ Date PRC Practice Coach allocated to site ▪ Date of meeting regarding agency preparation		PRC, provider agency

Uses of the CQI data

- Accessible and timely data to staff to drive CQI
- Improved program feedback to multiple audiences (funders, policy makers, program developers, evaluators; program leadership & field staff, communities, clients)
- Data used to compare participants to previous evaluation cohorts (e.g., EHLS to smalltalk)
- Compare to broader population of target group
- Compare to established benchmarks

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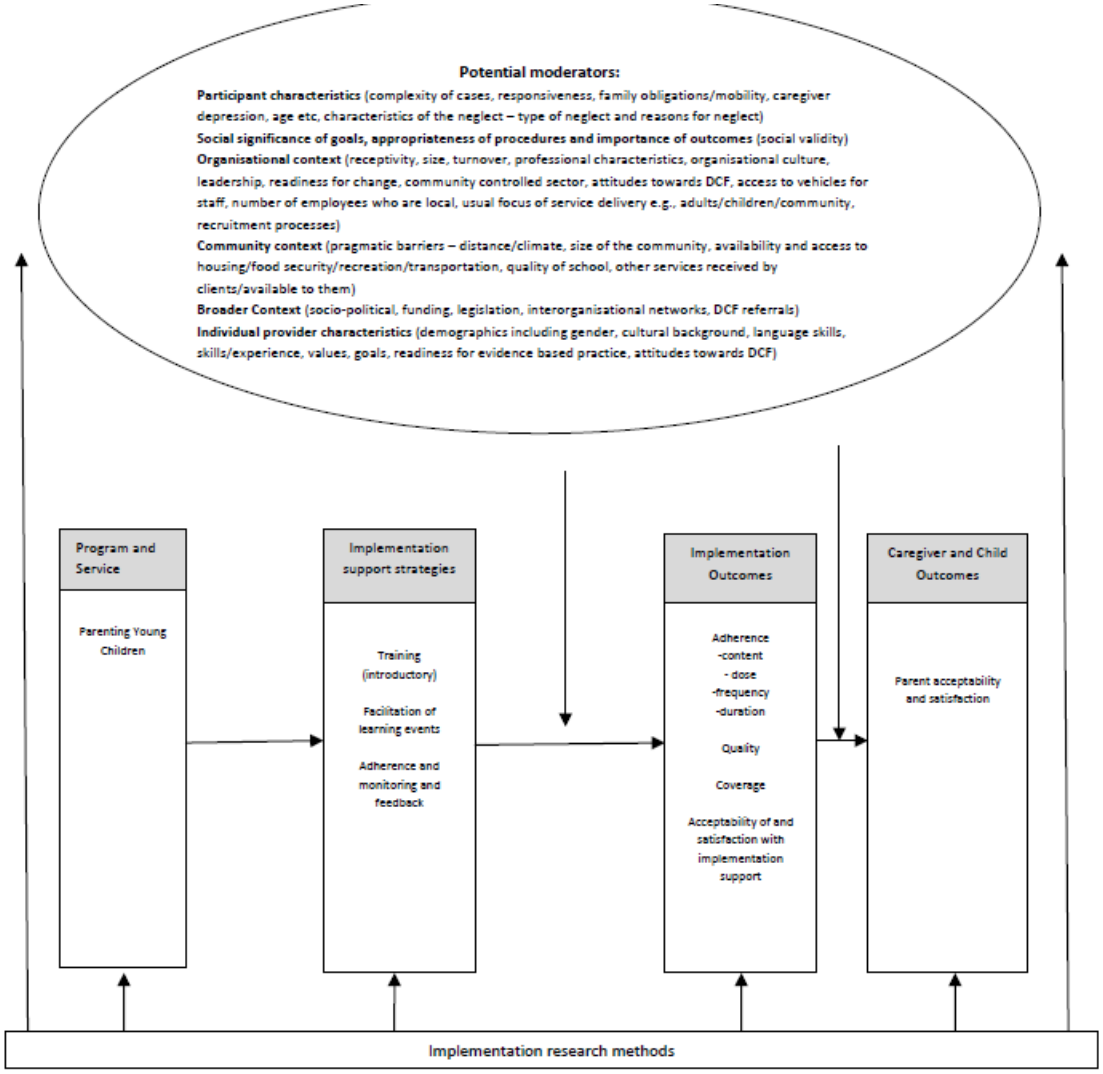

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LOW pay,
a ton of paperwork,
a massive caseload,
upset parents?

SURE,
SIGN ME UP!

Public Child Welfare Work.
It's not for everyone.

It's for people
who believe they can
make a difference in
a world of challenges
and hard knocks.

You know who you are.
Find a job that matters.

Contact your
County Department of Social Services.

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Challenges in CQI

- Complex interventions, complex systems
- Data systems not always able to be integrated
- Data often limited to cross-sectional or panel data
- Limited research infrastructure at individual agencies
- Lack of funding
- No single, comprehensive system
- Individual systems designed for case management, not analysis
- HRECs unsure about CQI evaluation

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Challenges in CQI

"... [implementation research] sits oddly with ethics committee protocols that require precise pre-definition of interventions, mode of delivery, outcome measurements, and the role of study participants" (Goodyear-Smith et al., 2015)

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Benefits of CQI

- Promotes communication among partners
- Allows all to share information and apply improvements
- Increases the relevance of “lessons learned”
- Provides information to assess effectiveness of evidence-based practices
- Allows stakeholders to analyse the relationship of fidelity to outcomes
- Guides further program development
- Allows stakeholders to celebrate success
- Allows stakeholders to be accountable to consumers and funders

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In summary

Need to think beyond traditional evaluation models to ensure that EBPs are delivered with the best possible effect for those most in need.

A CQI approach to implementation and evaluation is a promising way to rapidly improve implementation and achieve intended outcomes associated with an intervention.

CQI offers a way to evaluate outcomes while also making adjustments to the **what** or to the **how** over time.

CQI incorporates methodological rigour with the type of practical flexibility often needed for the evaluation of complex, multi-component real-world interventions targeting challenging social problems.

CQI can help us understand how interventions work (i.e., what are the critical components of a program and how are they best delivered).

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Acknowledgements

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Case Study: Homelessness service in Qld

Development of a ‘way’ for practitioners in adult-focused services to better support the their adult clients to meet the immediate needs of children in their care

Families have a range of complex issues and life circumstances, most homeless or at risk of being homeless

Clarified outcomes (improved child physical health and safety & child participation in early childhood or education)

Documented a practice framework aimed at these outcomes

Drivers: staff selection, training, coaching, data support decision making

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Case Study: Large NGO in NSW

Develop/adapt tools (incl. assessment and service delivery) for identifying and working with families where there is DV.

- Target population, aims & outcomes
- Evidence & Practice Mapping
- Develop/co-produce practice framework
- Installation (readiness, fit, adaptation, structure for implementation, staff recruitment, training)
- Implementation (training, coaching, supervision, CQI evaluation)

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Case study: Family Support Agency in Perth

Build culture for CQI by integrating evaluation into their routine workflow:

- Enhance leadership support
- Create local CQI champions
- Develop workforce CQI skills
- Foster leadership and staff ownership of CQI
- Develop peer networks

Dashboards for monitoring trends against benchmarks

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Impact	Jan-June 2015	Jul-Dec 2015
Goal achievement for closed cases	Family / Worker	Family / Worker
Goals fully reached	11% / 22%	38% / 40%
No goals reached	0% / 17%	0% / 0%
Not applicable / no goals set	83% / 39%	50% / 10%
Child's Living Situation	Cases / Children	Cases / Children
No change	40% / 45%	55% / 59%
Out of home care to home	47% / 36%	35% / 35%
Increased KNOWLEDGE needed to improve their parenting ability	Parents/Adults	Parents/Adults
Knowledge increased significantly	17%	60%
Knowledge increased a little	28%	20%
Knowledge remained the same	56%	20%
Increased SKILLS needed to improve their parenting ability	Parents/Adults	Parents/Adults
Knowledge increased significantly	11%	50%
Knowledge increased a little	28%	20%

Case study: Multiple agencies/service system; Intensive family support services, NT

Co-development of IFSS, a collection of evidence-based and evidence-informed practices.

PRC provide implementation support across 5 agencies and 21 sites in the NT

Central and Local Implementation Team meetings as accountable, action-driven decision making bodies

Training + coaching

CQI evaluation

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