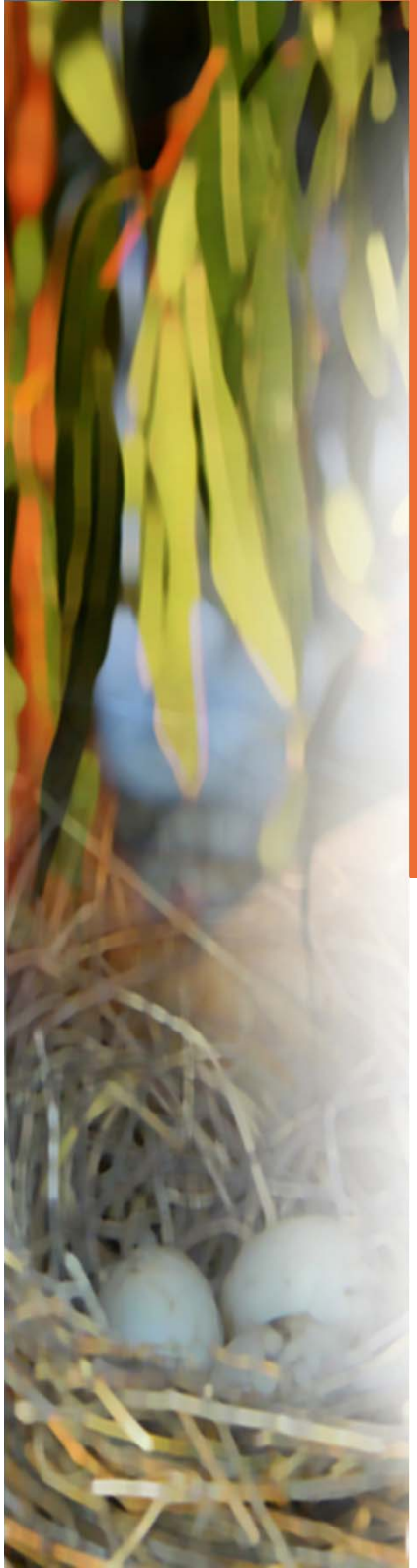


Designing an Integrated Care Initiative for Vulnerable Families

Operationalization of realist causal and programme theory, Sydney, Australia

John Eastwood

Community Paediatrics
Community Health Services
Sydney Local Health District

NSW Government Health
Sydney Local Health District

Healthy Homes and neighbourhoods

Our Research

The study reported here is situated in inner metropolitan Sydney, Australia, and is part of a program of research and program development that seeks to build and confirm a theory of “Neighbourhood Context, Stress, Depression, and the Developmental Origins of Health and Disease (DOHaD)”.

Healthy Homes and neighbourhoods

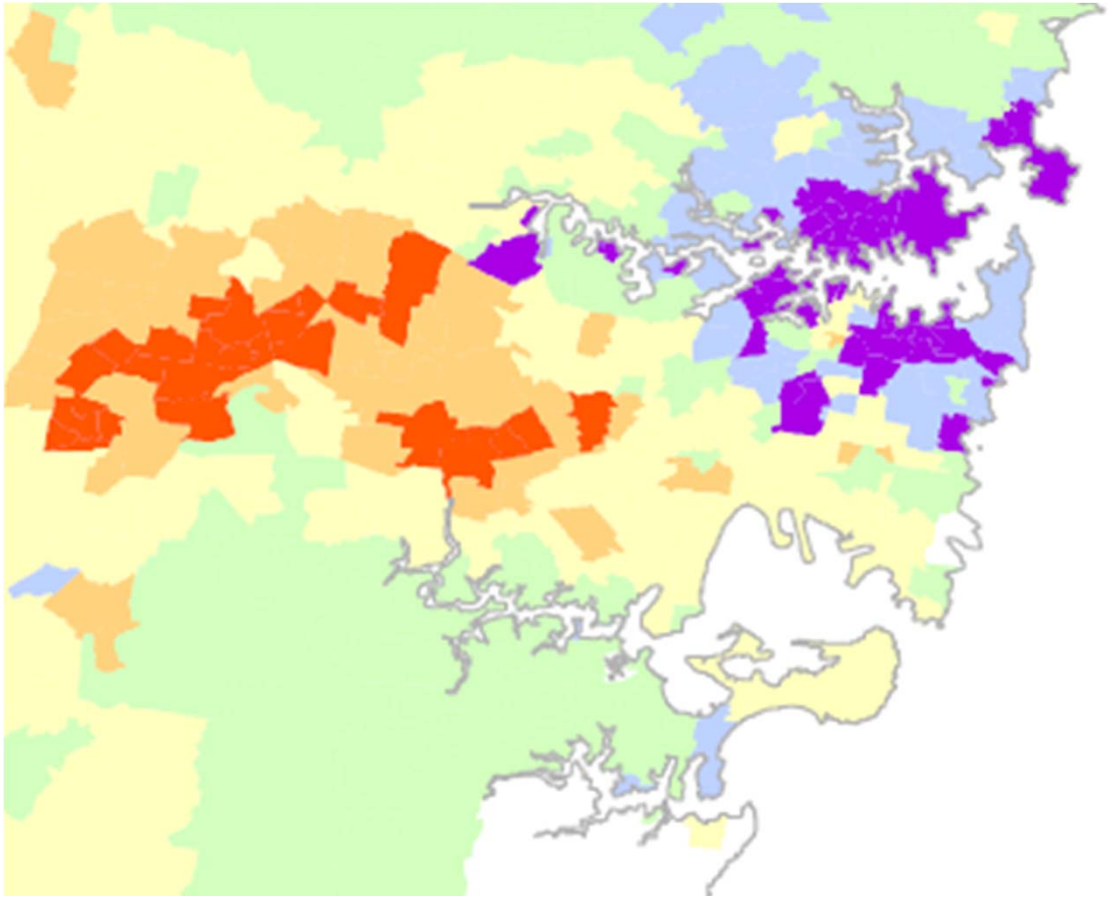
Cycles

We seek to break the *intergenerational* cycles of poverty, violence and crime, poor education and employment opportunities, psychopathology, and poor lifestyle and health behaviours.

(including: unhealthy nutrition and physical activity, tobacco and substance use, interpersonal violence, early and unprotected sexual activity)

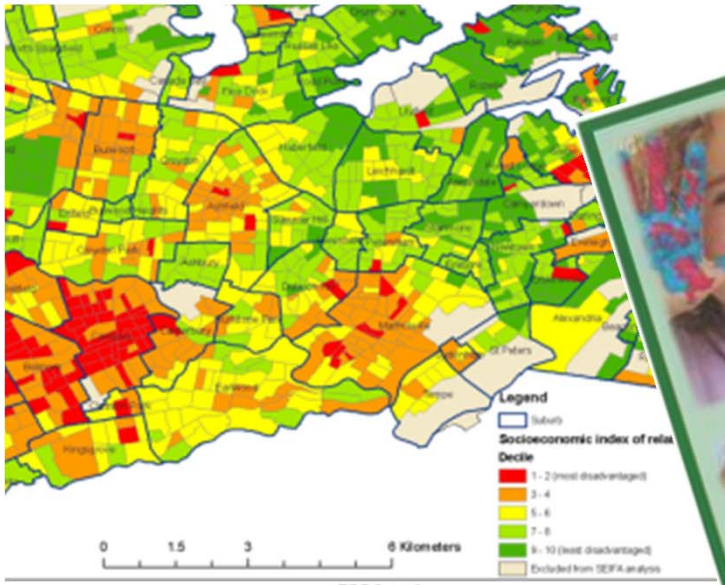
Healthy Homes and neighbourhoods

Sydney - A City Divided



Healthy Homes
and neighbourhoods

Population Outcome Indicators for Sydney and South Western Sydney



EPDS > 12
Relative Risks, 2002-2003
Bayesian CAR Model

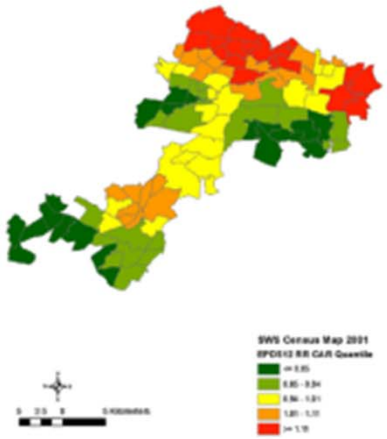


Figure 1 Bayesian CAR relative risks of EPDS >12.

Healthy Homes
and neighbourhoods

Realist Multilevel Mixed Method Studies of Maternal Depression

Spatial and Spatio-temporal Epidemiology 6 (2013) 49–58

Contents lists available at SciVerse ScienceDirect

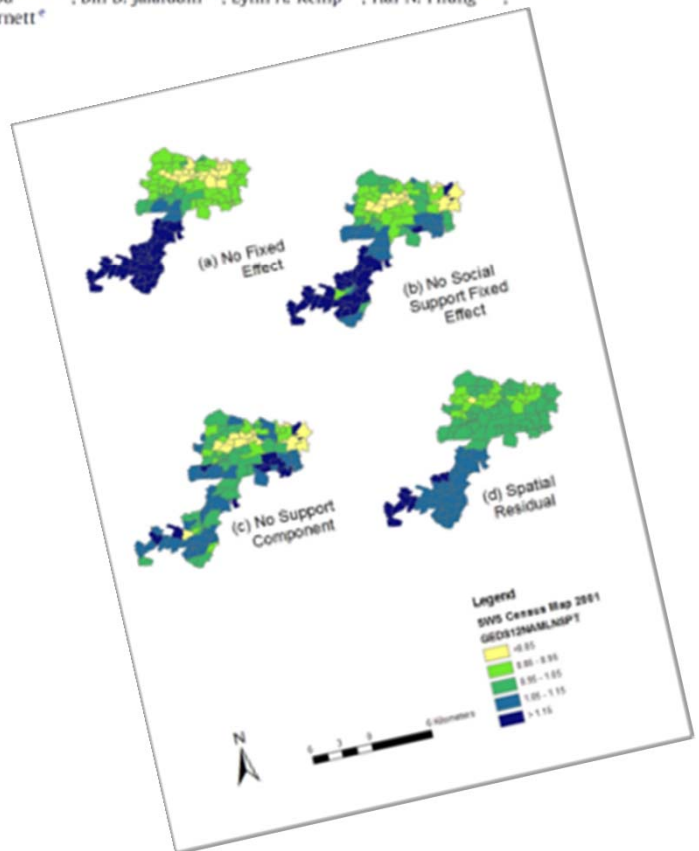
Spatial and Spatio-temporal Epidemiology

journal homepage: www.elsevier.com/locate/sste

Case Study

Immigrant maternal depression and social networks. A multilevel Bayesian spatial logistic regression in South Western Sydney, Australia ☆

John G. Eastwood [a,b,c,d,f,*], Bin B. Jalaludin [a,b], Lynn A. Kemp [a,b], Hai N. Phung [a,b,f], Bryanne EW Barnett [e]



Eastwood et al. BMC Pregnancy and Childbirth 2014, 14:47
http://www.biomedcentral.com/1471-2393/14/47

BMC Pregnancy & Childbirth

RESEARCH ARTICLE Open Access

Explaining ecological clusters of maternal depression in South Western Sydney

John Eastwood ED[1,3,4,5*], Lynn Kemp[2] and Bin Jalaludin[1]

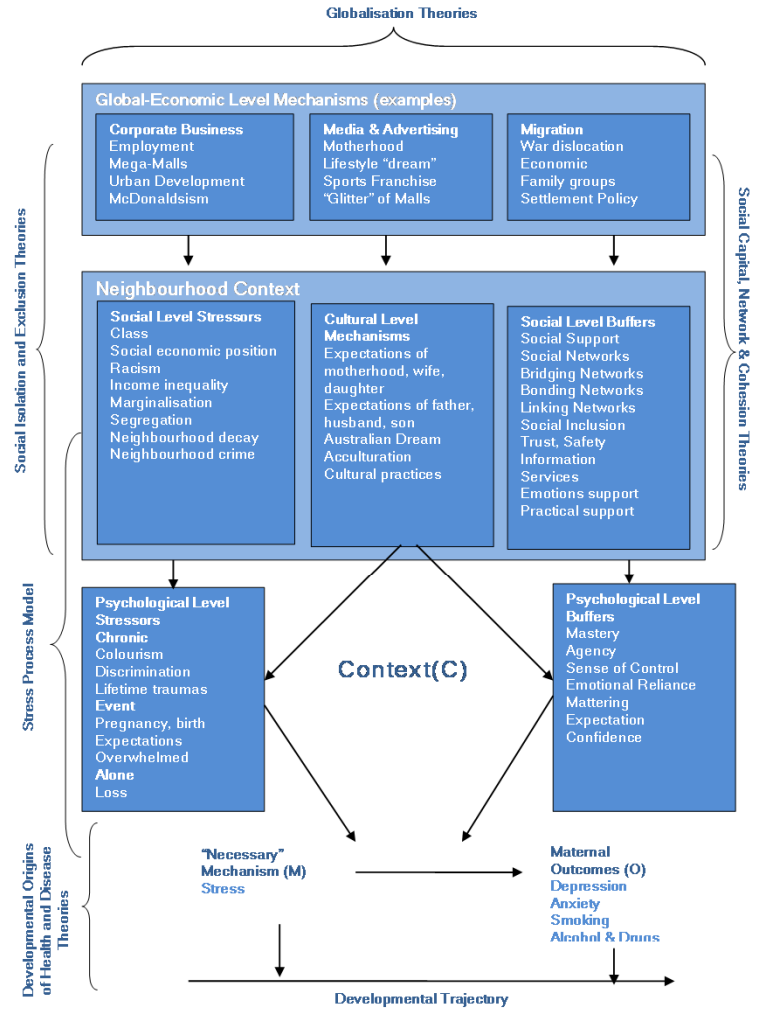
A Critique of Social Epidemiology

REALIST IDENTIFICATION OF GROUP-LEVEL LATENT VARIABLES FOR PERINATAL SOCIAL EPIDEMIOLOGY THEORY BUILDING

John Graeme Eastwood, Bin Badrudin Jalaludin, Lynn Ann Kemp, and Hai Ngoc Phung

Healthy Homes and neighbourhoods

Realist Theory Construction



Conceptual Framework of Maternal Depression, Stress and Context

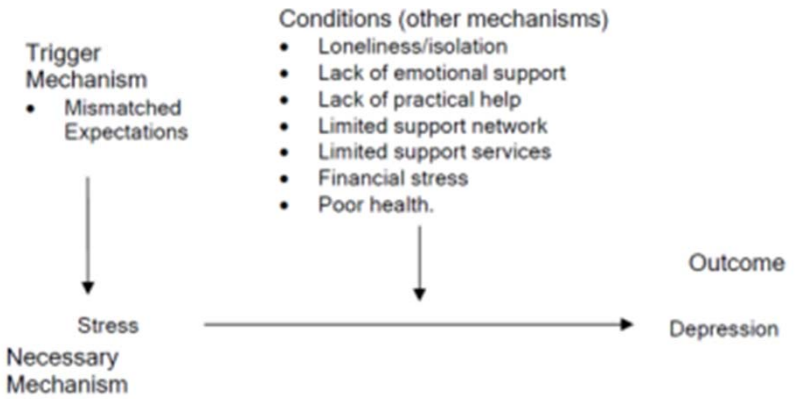
Eastwood et al. SpringerPlus (2016) 5:1081
DOI 10.1186/s40064-016-2729-9

SpringerPlus

RESEARCH Open Access

Realist theory construction for a mixed method multilevel study of neighbourhood context and postnatal depression

John G. Eastwood[1,2,3,4,5,6*], Lynn A. Kemp[4,7] and Bin B. Jalaludin[2,4]

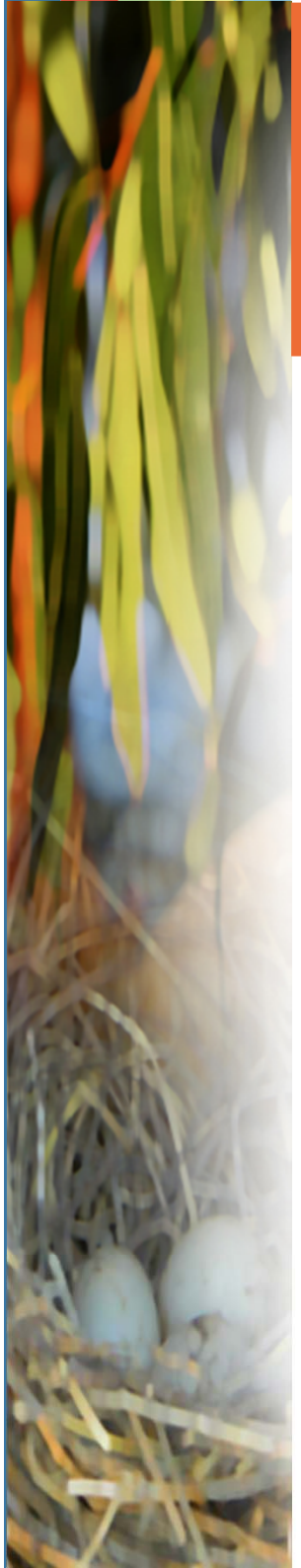


Healthy Homes and neighbourhoods

Theory to Intervention

The previously developed realist causal theory was used to inform programme theory and the collaborative design of initiatives for vulnerable families.

Healthy Homes and neighbourhoods

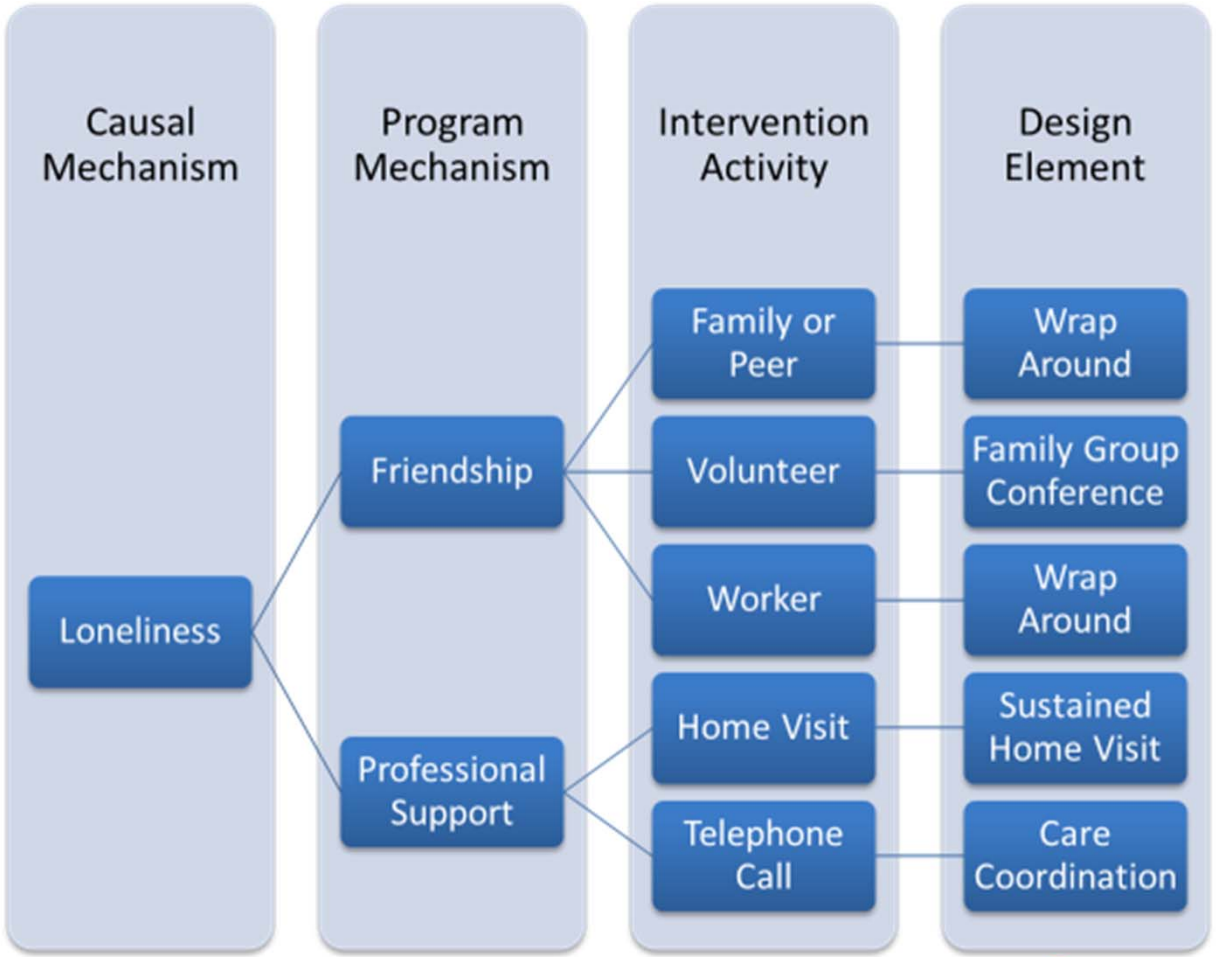


Causal Mechanisms Analysed

- expectations
- loss
- being alone
- lifetime trauma
- discrimination
- mastery
- sense of control
- mattering
- trust
- isolation
- access to services
- information literacy
- social capital
- social exclusion.

Healthy Homes and neighbourhoods

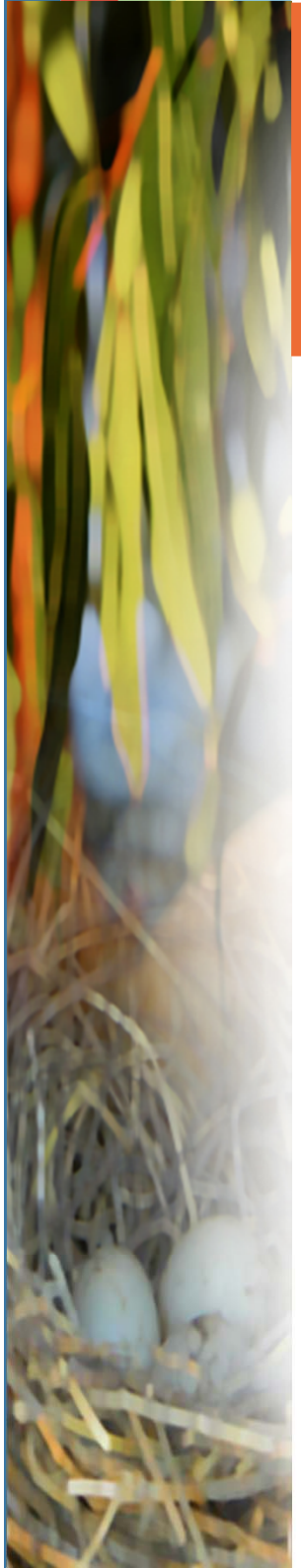
Theory to Design Analysis



Proposed Program Mechanism, Intervention Activity and Design Elements for Causal Mechanism "Loneliness"

Healthy Homes and neighbourhoods

Theorised Contextual Conditions [C]	Present contextual mechanisms activated [C_M]	Proposed Intervention Design Elements [I]	Postulated Intervention Programme Mechanisms [M_P]	Postulated psychological, motivational and behavioural Outcomes [O]
Self – Self-identity and individuals experience				
Lack of partner and family support, Distrust of services, Limited treatment access	Stress mechanism activated causing anxiety and depression	Friendship and family support, Professional support, Medication, Treatment	• Activate mediating mechanisms of family, peer and professional support to strengthen and build trusting relationships with peers, family and clinicians through SHV and FCISD Design Components.	Decreased depression and anxiety
Lifetime trauma, Loss, Being alone, Isolation	Stress mechanism activated arising from mismatched expectations, and loneliness	Family and peer support, Home visiting, Telephone support		Increased perceived support
Situated Activity – Face to Face activity				
Services unavailable or poor access, Services not trusted, Services not skilled	Absence of trusted professional support mechanism	"wrap around" services, Family Conferences, Workforce training	• Activate services mechanisms that are client, peer and neighbourhood focused, and trauma and evidence informed through FCISD and IS Design Components.	Improved perceived access to skilled and trusted services
Community distrust, Low social capital and cohesion, crime, unemployment	Absence of trusted neighbourhood and community support mechanism	"wrap around" services, Family Conferences, Public health, Social work services		Improved perceived support from neighbours and community
Intermediate Level social and service organisation				
Unhelpful intake and referral practices, Lack of service, knowledge and trust	Absence of specialist service support mechanism for front-line professionals	Strengthened pathways and design Collocation of services	• Activate mechanisms related to trust and confidence with service network, increased local social capital, community trust and community safety • Activate mechanisms relating to improved coordination and access to services and information through FCISD and IS Design Components.	Improved perceived access to services that are "wrapped" around front-line workers
Weak social networks, community trust, community safety, available social services, access to information	Social level stress mechanisms relating to class, position, racism, segregation, crime and neighbourhood decay are activated tending to increase psychological stress	Population and community level interventions in neighbourhoods and communities		Decrease in psychological stress of individuals and families
Macro Level social and service organisation				
Migration, Mega-malls pull service activity away from neighbourhoods, Urban development	Activation of social level stress mechanisms tend to hinder the activation of social level buffer mechanisms	Population and community level interventions in neighbourhoods and communities	• Activate mechanisms related to increased social level activities in deprived neighbourhoods. • Activate mechanisms related to increased migrant related social activities among ethnic populations through FCISD and IS Design Components.	Increase in perceived social level buffers
Immigration policy, Racism, Media policy, Global market, Settlement patterns, Ethnic bonding networks, Access to services	Migrant related social level mechanisms including acculturation, cultural practices and integration tend to decrease social level stress	Ethnic and cultural specific community and population level interventions		Increase in perceived migrant social level buffers



Theory to Design Analysis

Programme Mechanisms

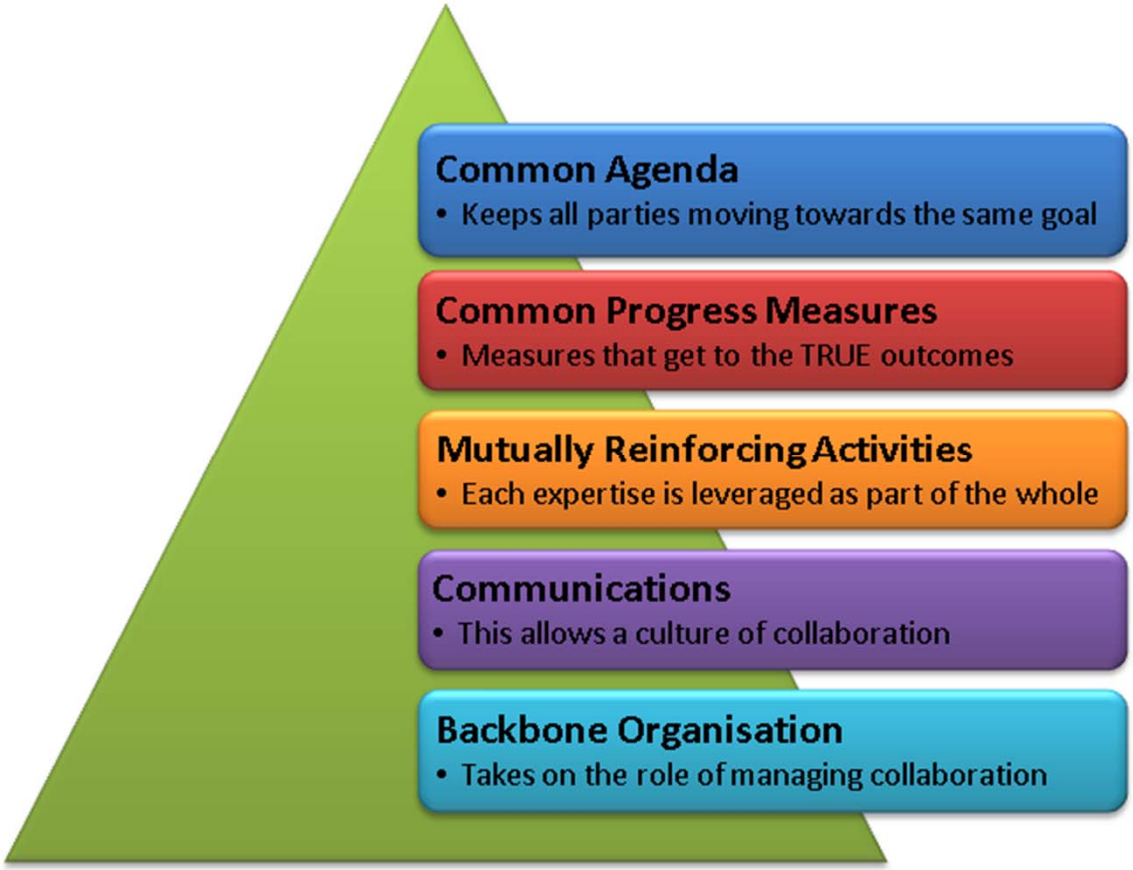
- family-peer trust
- family-provider trust
- willingness to share power
- co-operation
- Information
- building self-help skills

Intervention Activities

- strengthening peer and family support,
- client centred workers
- home visiting
- telephone support
- digital media

Healthy Homes and neighbourhoods

Collaborative Design: Collective Impact



Collective Impact from: Kania and Kramer 2011

Healthy Homes and neighbourhoods

Collaborative Design

The collaborative design process included:

- identification of outcomes
- identification of contextual factors
- consultation forums
- interagency planning
- integrated care policy framework
- Collaborative tender

Healthy Homes and neighbourhoods

Collaborative Design

Healthy Homes
and neighbourhoods

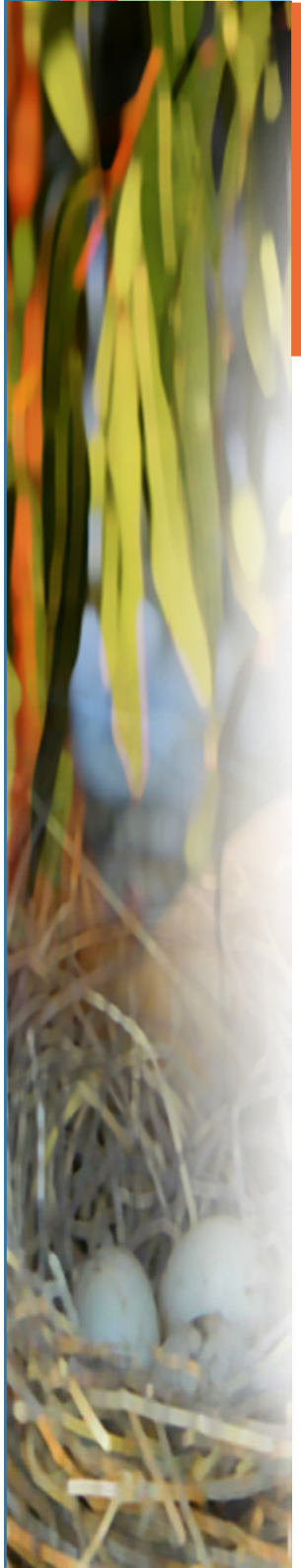
Healthy Homes and Neighbourhoods Integrated Care Initiative (HHAN)

Long term care coordination for vulnerable families with complex health and social care needs, who are disconnected from key services and require multi-agency support to have these needs met.

Aims to keep clients and their families safe, and connected to society

NSW GOVERNMENT Health
Sydney Local Health District

Healthy Homes and neighbourhoods



Design Elements

- care coordination
- sustained nurse home visiting
- wrap around services
- family group conferencing
- primary care support
- place-based initiatives
- Family Health Improvement Component
- targeted parenting social media
- workforce development
- outcome monitoring
- realist program evaluation

Healthy Homes and neighbourhoods

Design Components

GOVERNANCE STRUCTURES AND PROCESSES
District Partnership Committee
Healthy Homes Steering Committee

Healthy Homes Care Coordination Trial

- Identify families
- Link services
- Sustain review

General Practice Linkage

- Engage
- Support
- Training

City of Sydney - South Trial

- Local hub
- Co-location of services
- Community needs assessment

Canterbury LGA Trial

- Local hub
- Co-location of services
- Community needs assessment

Capability Projects

- HealthTracker
- Patchwork tool
- Care coordination app
- EMR Algorithm

Family Health Improvement

- Key messages
- Website
- Social media

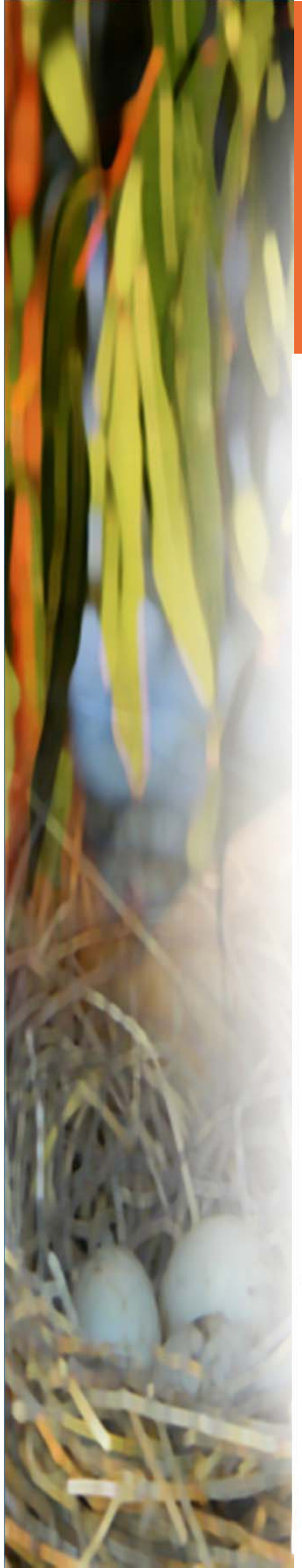
STRENGTHENING SECTOR CAPABILITY
Healthy Homes and Neighbourhoods Network

System Change

- Professional trust and knowledge
- Identification & risk stratification
- Informed consent policies
- Shared intake & communication systems
- Shared standards of collaboration

Capability Building

- Translation research
- Trauma & family partnership skills
- HealthPathways development
- Shared standards of collaboration



Theory of Change

Context

Disconnected and struggling Families

Marginalised ⟷ Included

Chronic health conditions unrecognised, unmanaged or undermanaged

Multiple services managing discrete needs and crises without coordination

High likelihood of intergenerational consequences – child development, education, community contribution

Inputs

Family focused activities:

- Service package designed around and negotiated with families
- Care coordinators broker from existing service system with priority access
- Key worker walks alongside the family as they engage, disengage and reengage
- Long contact with family with tapered intensity – from face t0 face to virtual

System reforms:

- Knowledge & Learning Network captures barriers and enablers
- PatchWork allows coordinated engagement with family

Outputs

Outputs – (stabilisation)

- Family engaged with Healthy Homes team and services
- Whole of family plan with specific actions/goals agreed
- Participation in family focused and individual focused support programs
- All agencies interacting with family through Healthy Homes team & PatchWork
- Family stabilisation/crisis averted

Outcomes

Intermediate outcomes – at 24 months

- Chronic health conditions are recognised and managed
- Parenting capacity has increased
- Secure connection to GP is established
- Children and young people are attending school and learning
- Adults and young people are engaged in meaningful activities
- The family is connected to their local community
- Family confidence and competence has increased

System Outcomes:

- Agencies are signed up Sydney Health Homes Partners
- Barrier and enabler analysis completed and priority actions agreed

Long-term Impact (5 years)

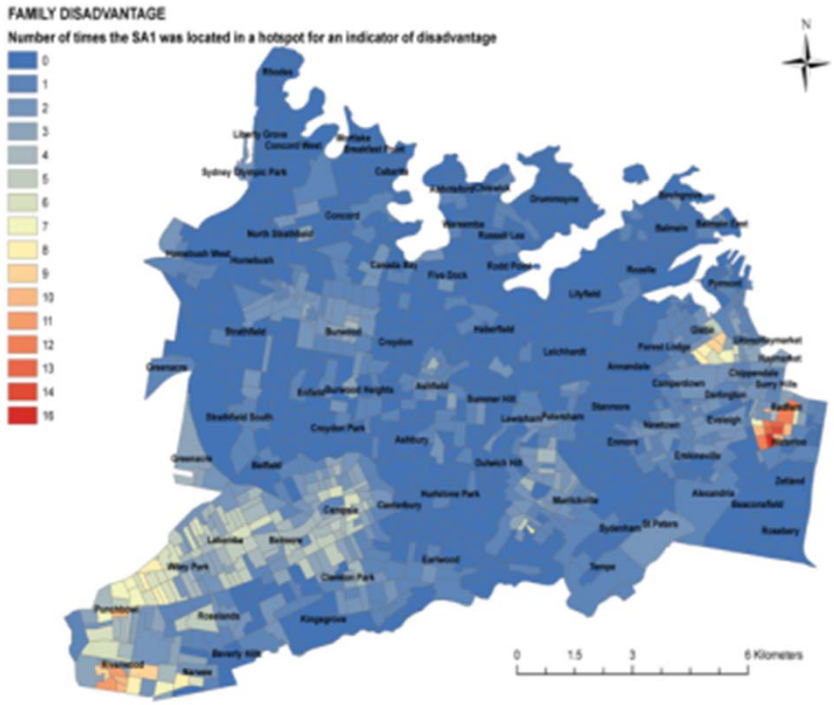
Resilience: Reduced need for intensive, crisis-oriented support and greater use of universal services

Capability: Increased engagement in learning, earning, community

Prevention: Reduced intergenerational effects of persistent disadvantage

Healthy Homes and Neighbourhoods Integrated Care Initiative (HHAN)

- SLHD-based with a current focus on two identified “hotspots” of disadvantage



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Healthy Homes and neighbourhoods

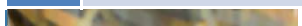
THANK YOU

Thank you

Healthy Homes
and neighbourhoods

Functional Component	Key Feature
Patient and carer empowerment	
Engaging the patient/carer in care planning	• The implementation of processes and systems that ensure the integrated care plan meets the needs and preferences of patient/carers as defined by patients or carers themselves (shared decision making).
Using patient reported measures in care delivery	• The implementation of a system of patient reported measures for enrolled patients that measure both the patient's perceptions of both their care experience and their outcomes, due to the care that they receive. • This includes the timely provision of the information to clinicians/ team delivering care to enable shared care planning / shared decision making.
Supporting and promoting self-management	• A set of defined care interventions specific to the targeted patient cohort to support self-management • This also includes strategies to increase capacity for patients and carers to better self-manage their condition
Building patient / carer health literacy	• The implementation of processes and systems (such as training and information) that improve the patient's understanding of their health condition(s), how to maximise their ability to manage it themselves, how/when to access health services and what role they play in managing their health condition(s). • This also includes care plan access, and active participation to the extent possible in care planning.
Patient identification and selection	
Defining local health needs	• The set of local health system parameters which broadly identify the types of patients that require the implementation of an integrated care pathway to improve the effectiveness of healthcare delivery (such as potentially avoidable hospital admission, ED presentations, delays in receiving specialist treatment).
Identifying target cohorts	• Patient level parameters (such as demographic, e.g. age; clinical, e.g. diagnosis; utilisation, e.g. number of medications; other, e.g. measure of social disadvantage) that define the group of patients that will be targeted/enrolled in the integrated care program.
Developing systematic approaches to risk identification	• The standardised approach to risk identification (such as signs of health deterioration) and methodology (such as automated processes in PAS/EMR/EHR) for identification of the targeted cohort of patients who would benefit from an integrated model of care. • The targeted risks and cohorts can vary locally, and can vary over time within locality as programs mature.
Innovative ways of working	
Establishing new business models	• The identification and implementation of business models across the continuum of care are being to promote care delivery which improves patient care and experience through improved coordination and integration. • The models sit alongside service models (which operationalize service delivery). • They potentially incorporate financial and/or non-financial elements. • The models may include the selection of alliance partners (such as GPs, NGOs or other government organisations) and investment in new roles, as well as the use of known business models (such as Person Centred Medical Homes or a Commissioning Framework).
Ensuring appropriate and timely access to specialist care	• Needs for the identified cohort. • The function may be achieved in a number of different ways (for example, quarantining appointments in hospital based clinics or purchasing services from a telehealth provider).
Shared/joint care planning and management with the patient/ carer	• The development of shared or joint care planning and care management strategies between the initiator of the care plan, the patient, and other healthcare professionals who are to be involved in the care and service delivery to targeted patients.
Establishing roles focused on organising patient-centred care	• The establishment of roles (such as case managers, care navigators, care facilitators) to support the implementation of the integrated care model of care across care settings (such as hospital, primary care, specialist care, community care).
Embedding agreed models of care	• The uptake of models of care for patients with specified conditions that are based on evidence based medicine and adhered to by those clinicians seeing targeted patients. • This includes the process of designing and agreeing the models with stakeholders to optimise uptake.
Primary and Community care as the hub	
Connecting people to their healthcare team	• The assignment of targeted patients to a clinical provider (individual/practice) whose role is to be the lead clinical provider with responsibility for the shared care plan and initiating communication with other care providers (such as specialist, GP, aged care, community care).
Systematic assessment, review of patients	• The implementation of a system of standardised assessments, regular patient reviews, and uploading of relevant clinical metrics by clinical care providers based on developed integrated care pathway protocols.
Building capacity/capability in primary and community care	• The enhancement of resources (such as care navigators, training programs, care pathways, share care planning tools) in the primary and community care settings to support integrated care delivery to targeted patients.
Information Sharing	
Establishing a trackable cohort list	• The establishment of an electronic patient list/register that identifies all patients enrolled in the integrated care initiative and enables the monitoring of the patient journey, as reflected through the patient's use of healthcare services.
Establishing shared access to patient information	• The extent of electronic patient information on enrolled patients available to clinicians across care settings who are delivering the agreed integrated model of care (such as care plans, e-referral, discharge summaries, medication profiles, test results, service events).

	Design Component	Inner West Sydney Collaborative Design	Ministry of Health Integrated Care Policy	Design Elements
1	Shared identification and intake	Strengthen existing perinatal screening and coordination system through review, training and monitoring High risk infant tracking models	Identifying target cohorts Developing systematic approaches to risk identification Establishing a trackable cohort list Establishing shared access to patient information	Shared identification Shared risk stratification Pathways to care Shared intake systems
2	Care Coordination	Strengthen existing perinatal screening and coordination system through review, training and monitoring Strengthen Tier 2 support services Integrated service models including wrap-around and family group conference model High risk infant tracking models	Engaging the patient/carer in care planning Supporting and promoting self-management Using patient reported measures in care delivery Ensuring appropriate and timely access to specialist care Shared/joint care planning and management with the patient/ carer Systematic assessment, review of patients Connecting people to their healthcare team	Patient centered care Strength-based care coordination Facilitated access to specialist care Shared care planning Shared assessment and review of patients Wrap around connecting people to health and social care team
3	Evidence informed practice	Strengthen current SHV by training, resourcing, management support Integrated service models including wrap-around and family group conference model Targeted parenting programmes		Sustained Home Visiting Wrap around service model Family Group Conferencing Targeted Parenting Programs
4	General Practice engagement and support		Connecting people to their healthcare team Systematic assessment, review of patients Building capacity/capability in primary and community care	Connecting families to general practice “health home” Supporting general practice to engage and support families Capacity building of general practice
5	Family Health Improvement	Review and strengthen universal services Targeted parenting programmes Universal family and community capacity building	Building patient / carer health literacy	Universal family health literacy Parent education and support programmes Sector-wide capacity building
6	Place-based initiatives	Implement new Tiered model of SHV in Canterbury and Redfern and Waterloo Integrated service models including wrap-around and family group conference model “Hub” and “place-based” community building and service coordination	Engaging the patient/carer in care planning Defining local health needs Connecting people to their healthcare team Building capacity/capability in primary and community care Establishing shared access to patient information	Place-based initiatives in City of Sydney and City of Canterbury Integrated care pilot projects to include: local needs analysis, consumer consultation, “service hub”, wrap around service provision, family group conferencing, community building and service coordination
7	System Change	Strengthen existing perinatal screening and coordination system through review, training and monitoring Review and Strengthen existing perinatal screening and coordination system Project management and leadership Sector capacity building projects System change projects	Establishing new business models Establishing roles focused on organising patient-centred care Embedding agreed models of care Defining local health needs	New business models Strengthen existing perinatal screening and coordination system Shared outcomes, assessment tools, models of care, and evaluation Sector capacity building projects System change projects
8	Child and family Outcomes	Child and Family public health (research, program, evaluation_	Using patient reported measures in care delivery	Patient reported measures
9	Evaluation	Child and Family public health (research, program, evaluation_	Defining local health needs	Critical realist evaluation Population outcome evaluation



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Unhelpful intake and referral practices, Lack of service, knowledge and trust	Absence of specialist service support mechanism for front-line professionals	Strengthened pathways and design Collocation of services	• Activate mechanisms related to trust and confidence with service network, increased local social capital, community trust and community safety • Activate mechanisms relating to improved coordination and access to services and information through FCISD and IS Design Components.	Improved perceived access to services that are "wrapped" around front-line workers
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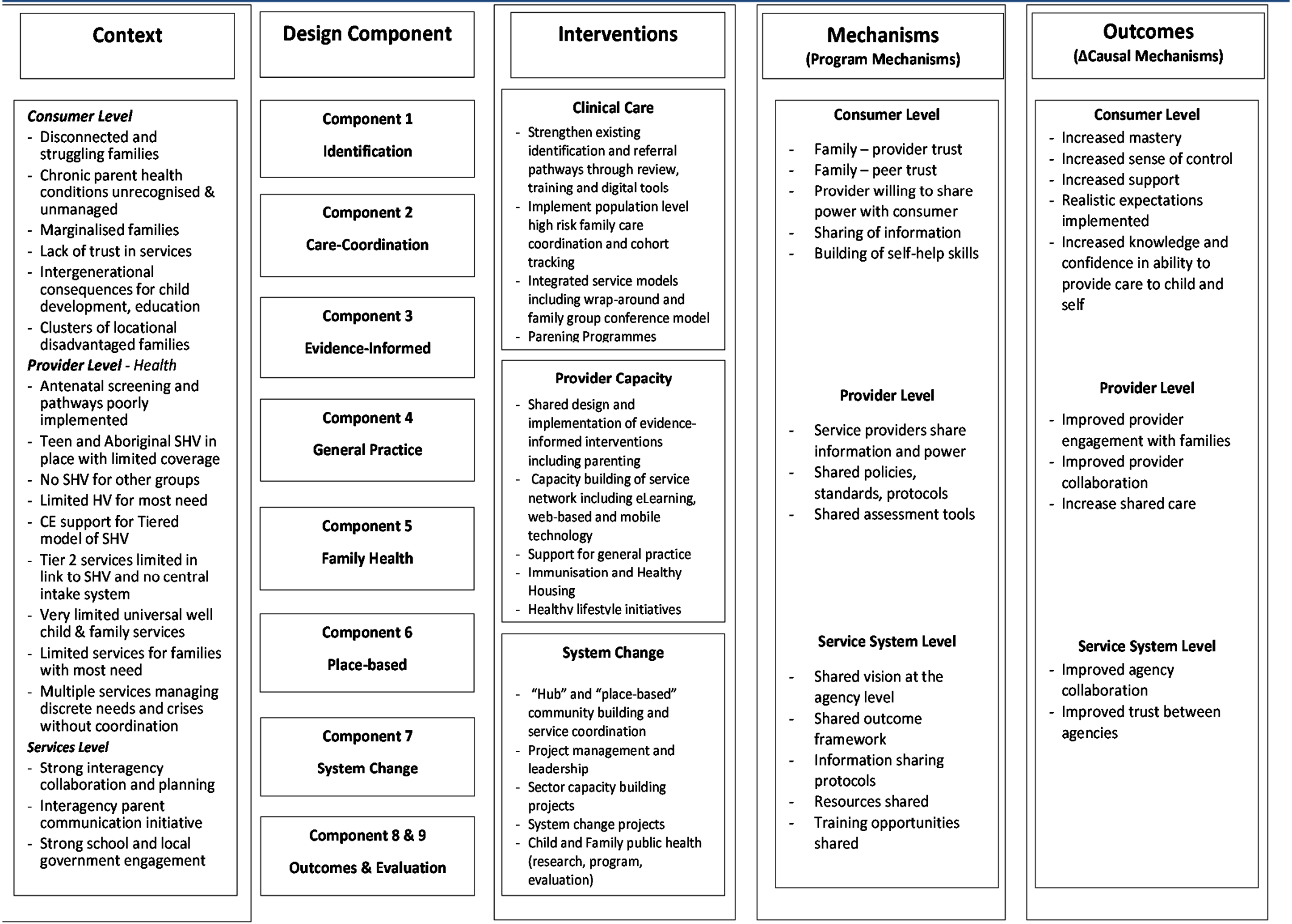

Figure 4. **ToC Logic Model**