



TRANSFORMATION PLAN

Integrated Care - **Vulnerable Families**



Health

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Using this Transformation Plan

This Transformation Plan aims to help local health regions to develop effective and efficient arrangements to implement a shortlisted Integrated Care Initiative. We are making progress to enhance integrated care in NSW and this document is a tool to support local areas to implement initiatives that reflect both local needs and good practice.

This Transformation Plan will be a dynamic ‘living’ document. As local health partnerships review and use the content of the plans, it is expected that further information and resources may be shared. This document is not intended to include all information for implementation. Further implementation support will be offered by NSW Health. This may include:

- enabling shared platforms to capture additional resources
- continuing support to local areas to ensure effective implementation;
- promoting and communicating the benefits of integrated care;
- monitoring the ongoing success of the scaled initiatives; and,
- enabling peer to peer learning opportunities.

We thank the local health partnerships across NSW who designed, tested and learnt from integrated care approaches. Local innovation and effort has enabled enhanced care initiatives to be shared state-wide.

Broader strategic information about integrated care in NSW can be found on the NSW Health website <https://www.health.nsw.gov.au/integratedcare/pages/default.aspx>.

For further information and support, please contact the Integrated Care Implementation Team at MOH-IntegratedCare@health.nsw.gov.au

The **Integrated Care Vulnerable Families (IC VF)** initiative is an intensive care coordination intervention for families where the parents or carers have complex health and social needs, and who have at least one child unborn to 17 years of age. This cohort are likely to experience barriers to engagement with the health system and other social services including Education and Family and Community Services, and often have multiple complex conditions.

Integrating Care in New South Wales – Overview

The NSW health system faces significant challenges in the coming decades as the effects of a **changing population** and the growing prevalence of chronic and complex disease place pressures on the delivery of health care.

Integrating Care is a crucial step to delivering care that is patient-centred and that is of value to the people of NSW.

Integrated Care is a way of working that enables care to be provided in a way that reflects the **whole of a person's** health needs; from prevention through to end of life, across both physical and mental health, and in partnership with the individual, their carers and family.

The aim is to have care centred on the person, rather than organisations, to enable people with complex needs to get the care they need. To transform to a more person-centred way of working, changes are required at organisation, service and care delivery levels.



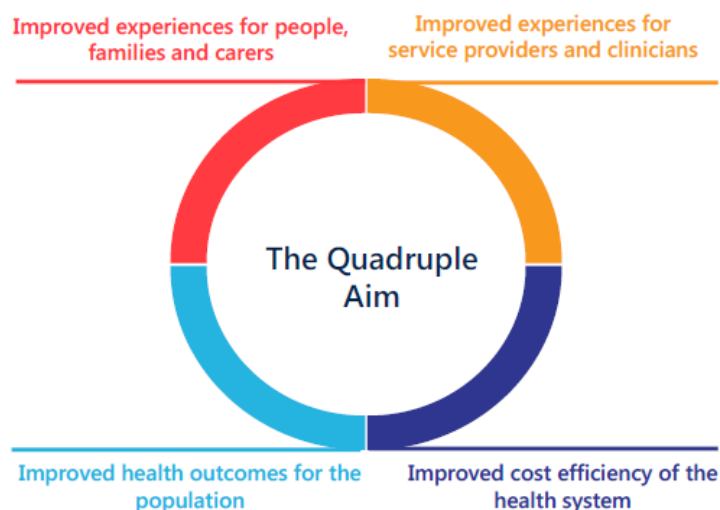
NSW Health initially supported local health partnerships to implement innovative, locally led models of Integrated Care across the state. Local areas trialled new ways of working to deliver care and address the needs of their communities.

NSW Health is now working with local health partnerships to scale up effective care initiatives and make care more widely available. Across NSW, five evidence based initiatives have been shortlisted. This will offer more people the opportunity to live healthier lives for longer, manage their own care needs, and to stay out of hospital when they do not need to be there.

All five proposed initiatives focus on improving outcomes for **vulnerable and at-risk populations** and people with **complex health and social needs** in primary and community care where possible and appropriate. The outcomes of the scaled initiatives will provide benefits for patients and staff, and contribute to NSW Health's Quadruple Aim.

Integrating Care in New South Wales – Strategic Context

To transform to a more person-centred and integrated way of working, changes are required at organisation, service and care delivery levels. Integrated Care aims to achieve a value-based health care system, centred on the Quadruple Aim of healthcare delivery.



The NSW Strategic Framework for Integrating Care highlights the importance of Integrated Care across the state. In NSW, the terms Integrated Care and Integrating Care are used interchangeably. NSW Health has built a strong foundation of integrating care that is realising tangible benefits. Key markers of progress include:

- Over 30,000 people in NSW (Oct 2018) are directly enrolled in Integrated Care programs
- People who are enrolled in Integrated Care go to hospital less often. If they do go to hospital, they stay for a shorter period of time.
- People tell us that they feel care is coordinated. (Commonwealth Fund, 2017).
- Local health systems are maturing in Integrated Care (Integrated Care Maturity Model, Ministry of Health 2018).
- NSW Health has an outcome focused monitoring and evaluation approach underpinned by the Integrated Care Outcome Database (ICOD) and the Patient Flow Portal.
- Enablers of Integrated Care are in daily use across the State such as definitions of integrated care approaches; finance and activity mechanisms; predictive patient identification and selection approaches; online tools; and data linkages.

Why use scaling?

In the health sector, scalable interventions are those shown to have had a positive impact on a small scale and are likely to show similar impacts when expanded to reach a broader population. Scaling up is a series of “deliberate efforts to increase the impact of successfully tested health interventions so as to benefit more people and to foster policy and program development on a lasting basis” (Milat et al. 2016). To scale initiatives it is necessary to also ensure strategic alignment, affordability, and compatibility with existing infrastructure.

Key considerations when deciding which initiatives were to be scaled up for NSW Health, included:

1. **Effectiveness:** the effectiveness, intervention effect size, unintended consequences and differential effects.
2. **Potential reach and adoption:** the likely reach and adoption of the intervention is extensive enough to have a population impact.
3. **Alignment with the strategic context:** whether the intervention is consistent with national, state or regional policy directions.
4. **Acceptability and feasibility:** whether the intervention could realistically be scaled up, given what is known about its cost, workforce requirements, time required, infrastructure requirements and acceptability to stakeholders.

Transfer, adaptation and/or scaling of local initiatives was also a recommended action following the 2018 NSW Formative Evaluation of Integrated Care:

‘MoH to support all LHD/SHNs to transfer, adapt and/or scale components of integrated care that have demonstrated positive interim outcomes or shown to have high potential for impact and the ability to be implemented with relative ease based on this evaluation. Importantly, LHD/SHNs need to ensure sustainability of existing and new projects’ (Ministry of Health 2018)

System Alignment

In addition to being aligned to the NSW Health Strategic Framework, this Integrated Care initiative supports a number of other State and Commonwealth strategic directions aimed at enhancing the health and wellbeing of people and supporting the Quadruple Aim of healthcare, including:

- NSW Health Plan: Towards 2021
- National Primary Health Care Strategic Framework
- Coordinated Care Bilateral Agreement (2017-2020) between the Commonwealth and New South Wales: Coordinated care reforms to improve patient health outcomes and reduce avoidable demand for health services
- NSW Health Leading Better Value Care Program
- NSW Health Patient Reported Measures Framework
- HealthOne NSW

Initiative Overview – Vulnerable Families

Integrated Care Vulnerable Families (IC VF) is an initiative for families with complex needs. Families may experience barriers to accessing health and social care, and are likely to have poorer health outcomes. Co-ordinated, multi-agency approaches can assist complex families to address multiple needs. This type of initiative, pioneered by Sydney Local Health District, demonstrated that families benefit from an Integrated Care approach.

The initiative provides “whole-of-family” care in the community, supporting the unique needs of the individual patient and the family unit. The initiative seeks to improve the family’s capacity to understand health information, increase the family’s engagement with health and social services, reduce duplication, and avoid unnecessary hospitalisations. The care is provided in an appropriate, safe and familiar setting. The system benefits from capacity building, partnerships and professional networks that develop across clinical and social support areas.

This care approach can support families in three main ways:

1. **Care coordination pathway** linking professionals from Health with other agencies to provide whole-of-family care to families with complex needs. This may include sector-wide capacity building.
2. **Place-based initiatives** (PBIs) in areas of heightened disadvantage with housing, drug and alcohol services, financial and legal services. Place-based hubs can include co-located IC VF staff with other health and social care professionals.
3. **Care coordination model** connecting patients to essential services through care coordination and case conferencing. This may be provided through support from experienced senior nurses and/or experienced senior social workers, who tailor care to the unique needs of the patient and their family.

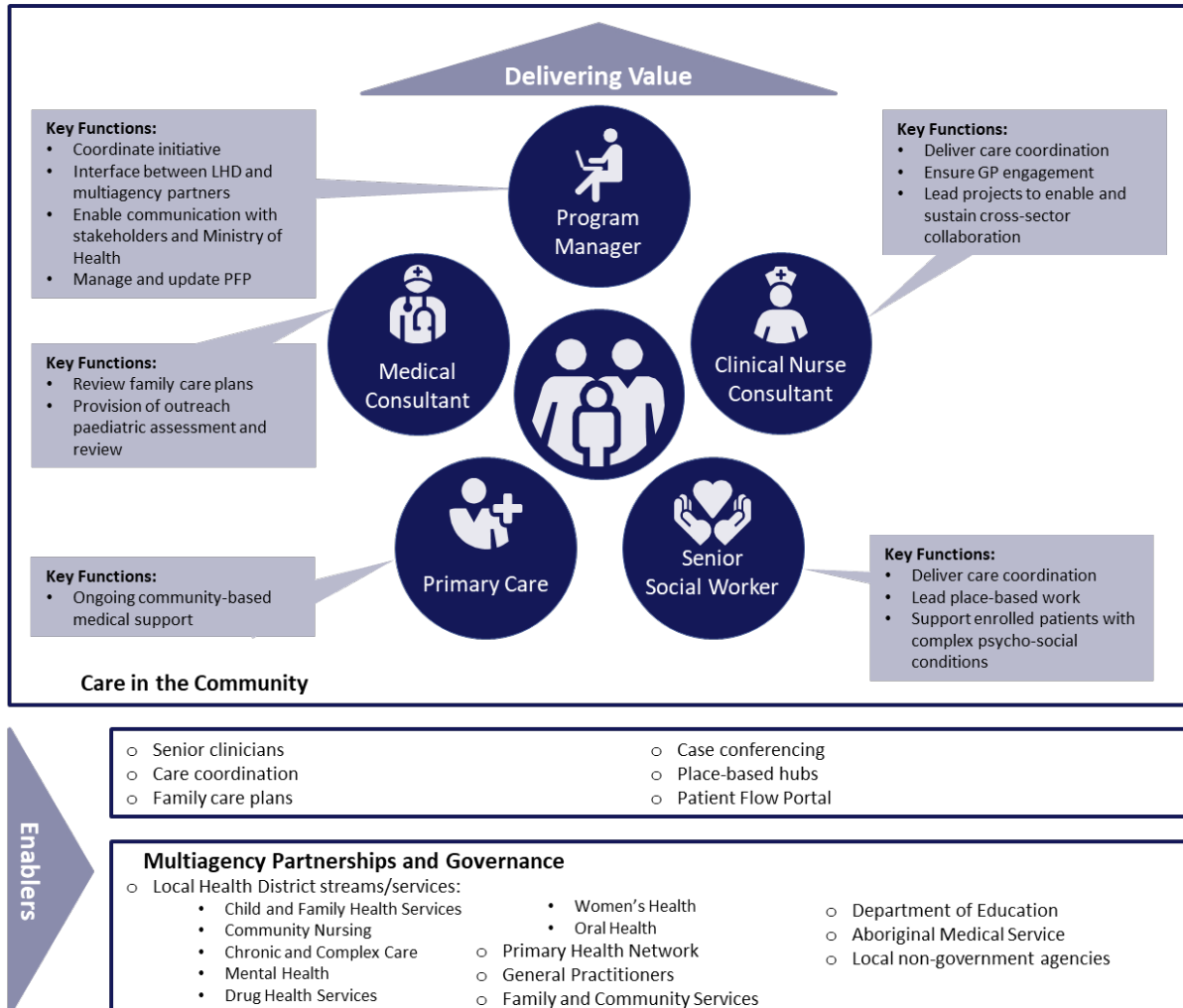
Patient Identification – Who could benefit from this initiative?

This initiative is for families where the parent/s or carer/s have complex health and social care needs, and have at least one child (unborn to 17 years). All family members are enrolled as patients in the initiative, and eligibility for enrolment is dependent on the adult family members’ health and social care needs. As such this is not a paediatric initiative but a family approach.

Families are referred by GPs, hospitals, community health services, schools or community agencies who identify a need for whole-of-family care coordination. These families may also be identified via localised multi-agency pathways where a place-based intervention may be implemented.

Initiative on a page

Integrated Care Vulnerable Families



Can we adapt the initiative for our local needs?

Local health and care systems should plan and implement this initiative in collaboration with partners; however, it is important that the key elements of the initiative are retained to ensure benefit to the people receiving care. The essential aspects of the initiative are set out below alongside areas for local adaptation.

Vulnerable Families	
Essential <i>Fixed elements</i>	Local considerations <i>For local formulation</i>
<p><u>Key Principles:</u></p> <ol style="list-style-type: none"> 1. For families with children unborn – 17 years, where parent/s or carer/s have complex health and social care needs and require multiagency support 2. Support is provided via whole-of-family care coordination and case conferencing 3. Place-based interventions in areas with high levels of family disadvantage <p><u>Data:</u> Patient level data captured in PFP (and complete the IC Patient Survey upon finalisation).</p> <p><u>Intervention Delivered:</u></p> <ol style="list-style-type: none"> 1. Care coordination (including phone calls, home visits, clinic visits and case conferences) led by Clinical Nurse Consultants and Senior Social Workers 2. Delivery of projects to sustain cross-sector collaborative support for vulnerable families 3. Co-location of staff at place-based hubs in areas with high levels of family disadvantage <p><u>Staffing</u></p> <ul style="list-style-type: none"> • Care is delivered by experienced Clinical Nurses Consultants and Senior Social Workers • Access to a paediatrician 	<p><u>Local Governance Structure</u> How LHDs and partners organise their governance and structure to deliver the outcomes in accordance with key principles.</p> <p><u>Local change management</u> How LHDs and partners drive any local change/s to fit individual circumstances.</p> <p><u>Staffing</u> Grading and physical locations.</p> <p><u>Communications</u> Consider initiative champions, appropriate executive sponsorship and a standard communications strategy (e.g. flyers).</p> <p><u>Catchment/Quantity</u> Location of place-based initiatives.</p>

Indicative Outcomes – Vulnerable Families

This section highlights indicative outcomes for this scaled initiative. These have been included to support health regions in the initial selection and planning process to consider the outcomes to be delivered for their selected initiative. Given this context, the outcomes are high level across individual, service and system areas as appropriate.

Experience for people, families and carers	Experience for service providers and clinicians
<ul style="list-style-type: none"> Improved family experience through holistic care provision with care wrapped around the family Empowerment of families to access appropriate care Improved engagement with health, education and social services 	<ul style="list-style-type: none"> Improved communication between health and care professionals including the wider community partners Improved capacity of staff to identify and manage families with complex needs Increased staff satisfaction through the provision of additional training, and support to assist families with complex needs
Effectiveness and cost efficiency	Health outcomes for the population
<ul style="list-style-type: none"> Increase in activity benefit/hospital capacity through reduction in unplanned hospital attendances for parents and children Targeted identification of families to proactive provide care Increase in activity benefit/hospital capacity through reduction in avoidable hospital admissions for parents and children 	<ul style="list-style-type: none"> Improved capacity to understand health care information Realisation of longer term outcomes such as improved academic achievement, reduction in homelessness, maintenance of employment Reduced likelihood of experiencing complex chronic health conditions in adulthood

Minimum Data Set

It is anticipated that there may be opportunity to further detail outcomes that are co-produced with consumers and service providers. The ambition is to agree on outcomes that matter to consumers, that can be robustly measured across care settings and that deliver value. In the meantime, the minimum data set below is required to add to the existing information for this initiative.

No.	Indicator	Source
1.	No. of participating families	PFP
2.	No. of patients enrolled in ICVF	PFP
3.	Primary presenting complaint	PFP
4.	Main reason for intervention	PFP
5.	No. of families with an identified GP	PFP
6.	% of patient goals achieved from patient management plan	CHOC

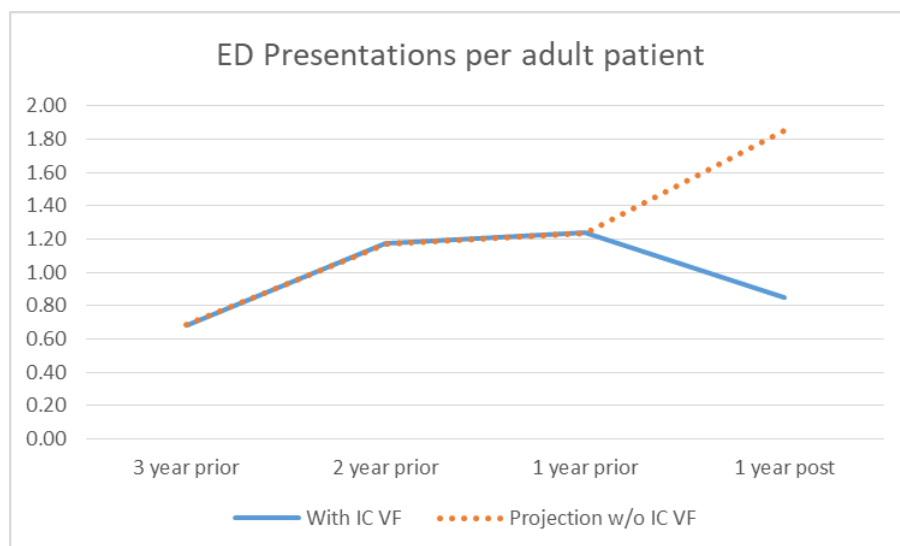
System Benefit – Vulnerable Families

The pioneered initiative captured qualitative information. The highlighted benefits include:

1. **Care coordination pathway that improved access** - the model established a unique care coordination pathway. Independent qualitative interviews conducted with referred families showed the intervention enabled the families to improve access to services and health outcomes. Trust and knowledge transfer between service providers, particularly education and healthcare providers, developed over time.
2. **Place-based initiatives (PBIs) that improved partnership working and access** - People experienced better engagement and increased trust with services and were empowered. Participating service providers benefited from easier referral pathways, knowledge transfer and increased integration with other services.
3. **Care coordination model that improved self-awareness and outlook** - Trust and favourable interpersonal relations were identified as the major underlying mechanisms for a successful care coordination working relationship. The identified modes of intervention facilitating positive client outcomes included accessibility, flexibility, and service navigation.

Projected benefits

IC VF, in the pioneering LHD, showed system benefits. This included a decrease in the number of Emergency Department presentations per adult enrolled in the initiative. This is likely due to improved engagement in health services, including General Practitioners, and a general improvement in self-management of the individual's health and wellbeing. In the first year after the intervention is provided, each patient is likely to have a reduction of 0.4 ED presentations on the prior year, or an avoidance of 1 ED presentation compared to if the patient had not received this care.



There is emerging information to indicate an activity benefit for the children included in the initiative after a two year period. Further enrolments and analysis will confirm if this information is on ongoing trend.

Possible challenges and solutions

As part of implementation it is important to understand and plan for areas of potential challenge that may impact on outcome realisation. The identification of potential challenges could be considered in local implementation plans.

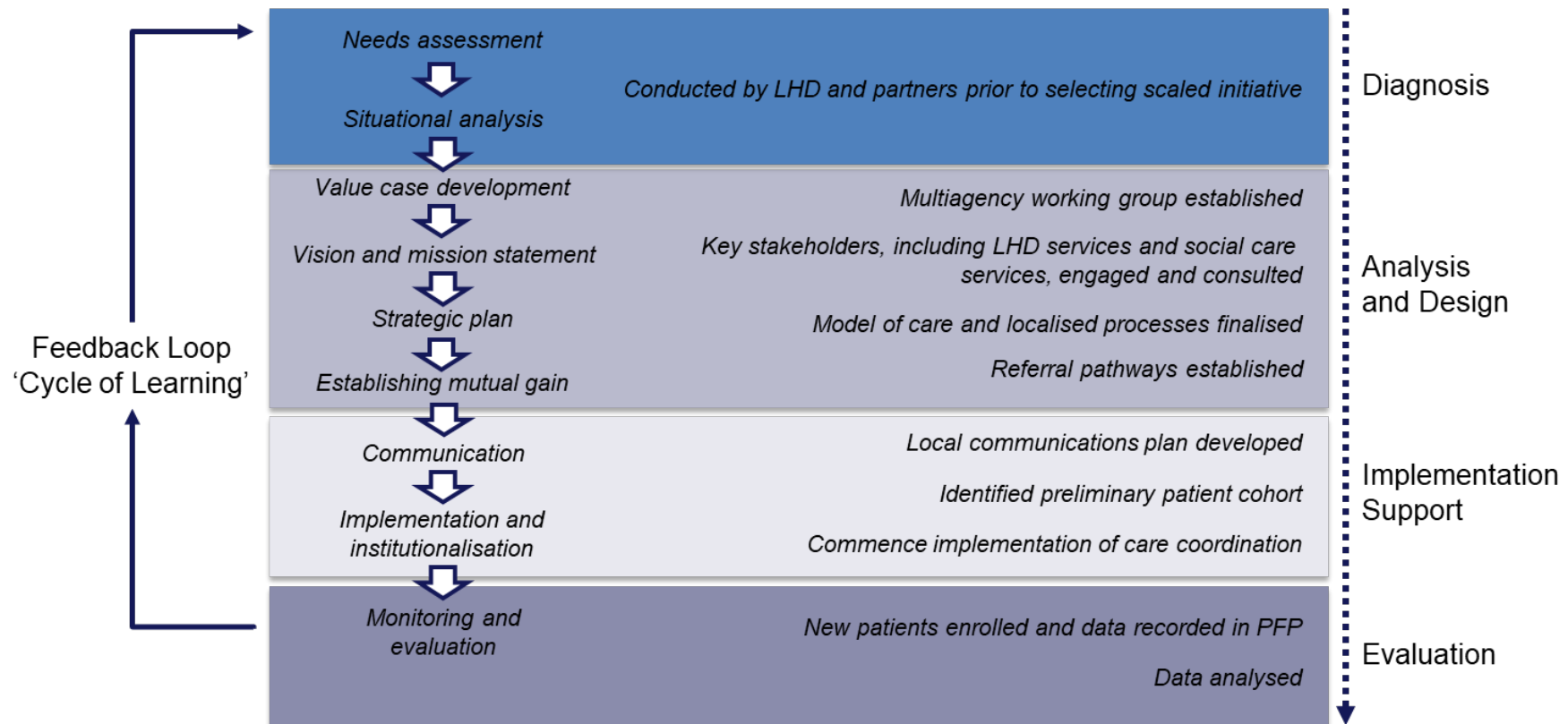
Vulnerable Families	
Possible Challenge	Potential Solution(s)
LHDs unable to fill positions in a timely manner	<ul style="list-style-type: none"> LHDs to use existing staff to fill positions Early communications and transition planning undertaken
Lack of acceptance from patients regarding need for intervention	<ul style="list-style-type: none"> Well-trained staff skilled in influencing and negotiation Education Flexibility
Some patients will have more complex social needs, undermining their ability to access care	<ul style="list-style-type: none"> Stepped checklist for carers and staff Health and general education regarding process Flexibility of staff Early engagement with other social care providers
Lack engagement from other internal and external service providers	<ul style="list-style-type: none"> Interagency communication (FACS, Education, Justice, Health) GPs – Early and ongoing engagement with PHNs Localised governance and sponsorship
Limited access to GPs in LHD	<ul style="list-style-type: none"> Develop a network of participating GPs in the LHD to support families included in the initiative
Dependency on IC VF initiative where hospitalisation would be more appropriate during the intervention	<ul style="list-style-type: none"> Staff training to ensure appropriate identification and referral Health literacy – to enable patient to make more informed decisions
Dependency on IC VF initiative where a response from FACS or child protection service would be more appropriate	<ul style="list-style-type: none"> Pathways to care are mapped Identify roles and responsibilities of FACS and LHD staff during intervention Staff training to ensure appropriate referral Staff refresher training to ensure awareness of mandatory reporting of child abuse and neglect
Availability of suitable location for place-based care	<ul style="list-style-type: none"> Identifying a suitable facility if place-based care is required Partnership with local organisations Initiative can be place-based or in community depending on context of local services and LHD capacity
Lack of social care providers available in the community	<ul style="list-style-type: none"> Pathways to care are mapped

Reference List

- Commonwealth Fund 2017, *2017 Commonwealth Fund International Health Policy Survey of Older Adults*, New York, New York, viewed 27 March 2019, <https://www.commonwealthfund.org/publications/surveys/2017/nov/2017-commonwealth-fund-international-health-policy-survey-older>
- Goodwin, N 2017, 'Change Management', in V Amelung, V Stein, N Goodwin, R Balicer, E Nolte & E Suter (eds.), *Handbook Integrated Care*, Springer, Switzerland, pp. 253-275.
- Milat, AJ, Newson, R, King, L, Rissel, C, Wolfenden, L, Bauman, A, Redman, S & Giffin, M 2016, 'A guide to scaling up population health interventions', *Public Health Research and Practice*, vol. 26, no. 1, viewed 27 March 2019, <http://www.phrp.com.au/issues/january-2016-volume-26-issue-1/a-guide-to-scaling-up-population-health-interventions/>
- NSW Ministry of Health 2018, *Integrated Care Maturity Model*, NSW Ministry of Health, North Sydney, NSW.
- Systems Information and Analytics 2018, *Integrated Care Outcomes Database Informer*, NSW Ministry of Health, North Sydney, NSW.

Appendix 1: Key Implementation Milestones

Adapted from Implementation Model of Integrated Care (Goodwin 2017).



Appendix 2: Supporting Resources

Case studies – scaling health initiatives

- Naylor, M & Sochalski, J 2010 *Scaling Up: Bringing the Transitional Care Model into the Mainstream*, The Commonwealth Fund, vol. 103, viewed 18 March 2019, http://www.wapatientssafety.org/downloads/TCM_Forefront.pdf

Translating one model “Transitional Care Model (TCM)” into mainstream practice which incorporates both in-person contact and a nurse-led, interdisciplinary team approach, how it can effectively interrupt patterns of frequent rehospitalisation, reduce costs, and improve patient health status.

- Barker, PM, Reid, A & Schall, MW 2016, ‘A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa’, *Implementation Science*, vol. 11, no. 12, viewed 18 March 2019, <https://implementationscience.biomedcentral.com/articles/10.1186/s13012-016-0374-x>

The framework describes four steps (1) *Set-up* – preparing for introduction and testing of the initiative; (2) *Develop the Scalable Unit* – early testing; (3) *Test of Scale-up* – testing the intervention in various settings that represent different contexts encountered at full scale; and (4) *Go to Full Scale* – rapidly to enabling a larger number of sites or divisions to adopt and/or replicate the intervention.

- Grooten, L, Alexandru, CA, Alhambra-Borras, T, Anderson, S, Avolio, F, Cotanda, EV, Gutter, Z, Henderson, D, Kassberg, AC, Keenoy, E, et al. 2018, ‘A scaling-up strategy supporting the expansion of integrated care: a study protocol’, *Journal of Integrated Care*, viewed 18 March 2019, <https://www.emeraldinsight.com/doi/full/10.1108/JICA-04-2018-0029>

The EU-funded a project called “SCIROCCO” which uses a step-based scaling-up strategy to explore what to scale-up, and how to scale-up integrated care initiatives by matching the complementary strengths and weaknesses of five European regions involved in integrated care.

Case studies – IC VF-type initiatives

The Ministry of Health has conducted a search for similar initiatives that have been implemented in other jurisdictions including the United States and Germany. It should be noted that these initiatives are not a direct replica for those proposed for implementation in NSW. However, they target similar patient groups and their outcomes indicate need and potential outcomes and benefits for such similar cohorts.

Improving psychosocial services for vulnerable families with young children – Germany – 2018

Article Reference	Renner, I, Neumann, A, Ukhova, D, Horstmann, S, Boettinger, U, Dreibus, M, Kerl-Wienecke, A, Wulff, P, Mechthild, P & Thaiss, H 2018 ‘Improving psychosocial services for vulnerable families with young children: strengthening links between health and social services in Germany’, <i>BMJ</i> , vol. 363, viewed 21 March 2019, https://www.bmj.com/content/363/bmj.k4786/
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Patient Cohort	Pregnant women and families with a child aged 0-3 years
Intervention	The Early Childhood Intervention (ECI) programme established municipal cross-sectoral collaborative networks across the country. It implemented diverse voluntary psycho-social measures to improve care for families and promote equal opportunities for all children. It offered prevention services and voluntary psychosocial support services to in-need families
Outcome	<ul style="list-style-type: none"> • 77% of health professionals involved in ECI said it was a relief for work that helps them to identify and provide optimal support for families beyond medical care. • In Berlin, only 2.5% of mothers identified as psychosocially burdened declined the offer to be included in the program. • In Dortmund, the one clinic out of four that implemented a pilot service experienced a rapid increase in the number of births. • A home visitation program was tested between 2007 and 2011 in an ECI pilot project showing improved social development of children compared with those in the control group. • Mothers judged their 1-year-olds' character as "less difficult" and the mother-child interactions in the intervention group was less "dysfunctional" than those in the control group. • The home visitation program "Pro Kind" showed a tendency for positive treatment effects on infant cognitive development at 6 and 12 months as well as improved parental capabilities at 12 months compared with controls. • In a two-year study of 937 families who received home visits by health professionals it was found that parental capabilities were increased across given domains.

School- and community-based intervention to promote healthy lifestyle and prevent type 2 diabetes in vulnerable families – Multiple Jurisdictions – 2018

Article Reference	Manios, Y, Androutsos, O, Lambrinou, CP, CArdon, G, Lindstrom, J, Annemans, L, Mateo-Gallego, R, de Sabata, MS, Iotova, V, Kivela, J, Martinez, R, Moreno, LA, Rurik, I, Schwarz, P, Tankova, T, Liatis, S & Makrilakis, K 2018 'A school- and community-based intervention to promote healthy lifestyle and prevent type 2 diabetes in vulnerable families across Europe: design and implementation of the Feel4Diabetes-study', <i>Public Health Nutrition</i> , vol. 21, issue 17, viewed 21 March 2019, https://www.cambridge.org/core/journals/public-health-nutrition/article/school-and-communitybased-intervention-to-promote-healthy-lifestyle-and-prevent-type-2-diabetes-in-vulnerable-families-across-europe-design-and-implementation-of-the-feel4diabetesstudy/19E37BB32416DCAD0871C208F99722A1/
Patient Cohort	Families (primary-school children, their parents and grandparents) were recruited from the overall population in low/middle-income countries (Bulgaria, Hungary), from low socio-economic areas in high-income countries (Belgium, Finland) and from countries under austerity measures (Greece, Spain).
Intervention	The Feel4Diabetes-intervention program included: (i) the 'all-families' component, provided to all children and their families via a school- and community-based intervention; and (ii) an additional component, the 'high-risk

	families' component, provided to high-risk families for diabetes as identified with a discrete manner by the FINDRISC questionnaire, which comprised seven counselling sessions (2016–2017) and a text-messaging intervention (2017–2018) delivered by trained health professionals in out-of-school settings.
Outcome	<ul style="list-style-type: none"> • Feel4Diabetes-intervention saw 30,309 families from 236 primary schools. • In total 20,442 families were screened, from which 12,193 'all families' and 2,230 'high-risk families' were measured at baseline.

Achieving family and provider partnerships for children with special health care needs – United States – 2006

Article Reference	Denboba, D, McPherson, MG, Kenney, MK, Strickland, B & Newacheck, PW 2006, 'Achieving family and provider partnerships for children with special health care needs.', <i>Pediatrics</i> , vol. 118, no. 4, viewed 21 March 2019, https://www.ncbi.nlm.nih.gov/pubmed/17015553?dopt=Abstract
Patient Cohort	Children with special needs.
Study	This article reports on an analysis of a national survey conducted in 2001 in the United States. The survey assessed the extent to which families of children with special health care needs felt as though they are treated as partners in decision-making by their doctors.
Outcome	<ul style="list-style-type: none"> • 85.8% of families reported usually or always feeling like a partner in their child's care • Living in poverty, minority racial and ethnic status, absence of health insurance, and depressed functional ability placed children with special health care needs and their families at elevated risk of being without a sense of partnership • Sense of partnership was associated with improved outcomes across a number of important health care measures, including missed school days, access to specialty care, satisfaction with care, and unmet needs for child and family services

Family-centred care for children with special health care needs – United States – 2011

Article Reference	Kuhlthau, K, Bloom, S, Van Cleave, J, Knapp, AA, Romm, D, Klatka, K, Homer, CJ, Newacheck, PW & Perrin, JM 2011, 'Evidence for family-centered care for children with special health care needs: a systematic review', <i>Academic Pediatrics</i> , vol. 11, no. 2, pp. 136-143, viewed 21 March 2019, https://www.academicpedsjnl.net/article/S1876-2859(10)00359-1/fulltext
Patient Cohort	Children with special health care needs.
Study	A systematic review of evidence for Family-Centred Care (FCC) focusing specifically on family-provider partnership as the activity that constitutes FCC.
Outcome	<ul style="list-style-type: none"> • Positive associations of FCC with improvements in efficient use of services, health status, satisfaction, access to care, communication, systems of care, family functioning, and family impact/cost • There was little available evidence, however, for some outcomes, including cost and transition • The available evidence suggests that FCC is associated with improved outcomes for children with special health care needs

Reducing high-user visits to the Emergency Department through a primary care intervention for uninsured patients – United States – 2018

Article Reference	Tsai, MH, Xirasagar, S, Carroll, S, Bryan, CS, Gallagher, PJ, Davis, K & Jauch, EC 2018, 'Reducing High-Users' Visits to the Emergency Department by a Primary Care Intervention for the Uninsured: A Retrospective Study', <i>Inquiry</i> , vol. 55, viewed 21 March 2019, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5888802/
Patient Cohort	Low-income, uninsured patients at a non-profit hospital located in an inner-city neighbourhood of Columbia, South Carolina with pockets of minority and low-income population concentrations.
Intervention	This is a retrospective cohort study of the impact of a primary care intervention including an in-hospital, free, adult clinic on ED visit rates and emergency severity.
Outcome	<ul style="list-style-type: none"> • Post the primary care access intervention there was a large reduction in ED visit rates of both high-users and higher end occasional users • 41.7% of high-users did not return to the ED post-intervention and among returning high-users, there were dramatic reductions in the annual visit frequency within every quartile (by 28%-68%) • The pattern of changes in emergency severity support a positive impact of the primary care intervention

Consultative care coordination through the medical home for CSHCN – United States – 2010

Article Reference	Farmer, JE, Clark, MJ, Drewel, EH, Swenson, TM & Ge, B 2011, 'Consultative care coordination through the medical home for CSHCN: a randomized controlled trial.', <i>Maternal and Child Health Journal</i> , vol. 15, no. 7, pp. 1110-1118, viewed 21 March 2019, https://www.ncbi.nlm.nih.gov/pubmed/20721612
Patient Cohort	100 children under the age of 18 with special health care needs and their parents/legal guardians were referred by a Medicaid managed care plan.
Intervention	A care coordinator supported the medical home by consulting with primary care providers at multiple practices to develop an integrated, individualised plan to meet child and family needs.
Outcome	<ul style="list-style-type: none"> • Compared to the control group, participants in the intervention group reported a decreased need for information and improved satisfaction with mental health services and specialised therapies • Decline in unmet needs • Improved satisfaction with specialty care and care coordination • Improved ratings of child health and family functioning • Improved outcomes for CSHCN and their families by supporting the efforts of primary care physicians to provide comprehensive and coordinated care through the medical home

Comprehensive primary care for children with special health care needs in rural areas - United States – 2005

Article Reference	Farmer, JE, Clark, MJ, Sherman, A, Marien, WE & Selva, TJ 2005, 'Comprehensive primary care for children with special health care needs in rural areas', <i>Pediatrics</i> , vol. 116, no. 3, pp. 649-656, viewed 21 March 2019, https://www.ncbi.nlm.nih.gov/pubmed/16140704
Patient Cohort	Fifty-one parents of children with special health care needs participated. Participants were recruited from three primary care practices in a central Midwest state.
Intervention	A medical home demonstration project in a more rural part of the country. The intervention focused on the provision of care coordination, information about resources and services, emotional support and encouragement, and empowerment for families to advocate for their children.
Outcome	<ul style="list-style-type: none"> • Parents reported significant increases in satisfaction with care coordination and access to mental health services after the intervention • A decrease in family needs, caregiver strain, parents' missed work days, children's school absences, and utilisation of ambulatory services • Satisfaction with primary care declined slightly but remained in the "very good" range • Families of children with more complex conditions were more likely to report a decrease in needs after intervention, but other factors, such as geographic location or socioeconomic status, were not related to key outcome variables