

# Care Coordination and Care Plans



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Sherri Adams, NP - Paeds



#### **Learning Objectives**

Describe
challenges in
care coordination
for children with
medical
complexity (CMC)
and their families

Describe members of clinical team and role of key clinical worker Discuss the utility of care plans and care maps

Review an approach to transition to adult care for CMC



## Children with Medical Complexity (CMC): A Definitional Framework



- High resource utilization
- Necessitating involvement of multiple service providers



- Substantial family-identified needs
- Significant impact on family (e.g. financial burden)



#### FUNCTIONAL LIMITATIONS



- Severe
- Often associated with technology dependence

### CHRONIC CONDITION(S)



- Diagnosed <u>or</u> unknown but suspected
- Severe and/or associated with medical fragility





Children with Medical Complexity



Improved health care coordination models help CMC and their families:



Get the care that they need



Reduce the opportunity for health care error

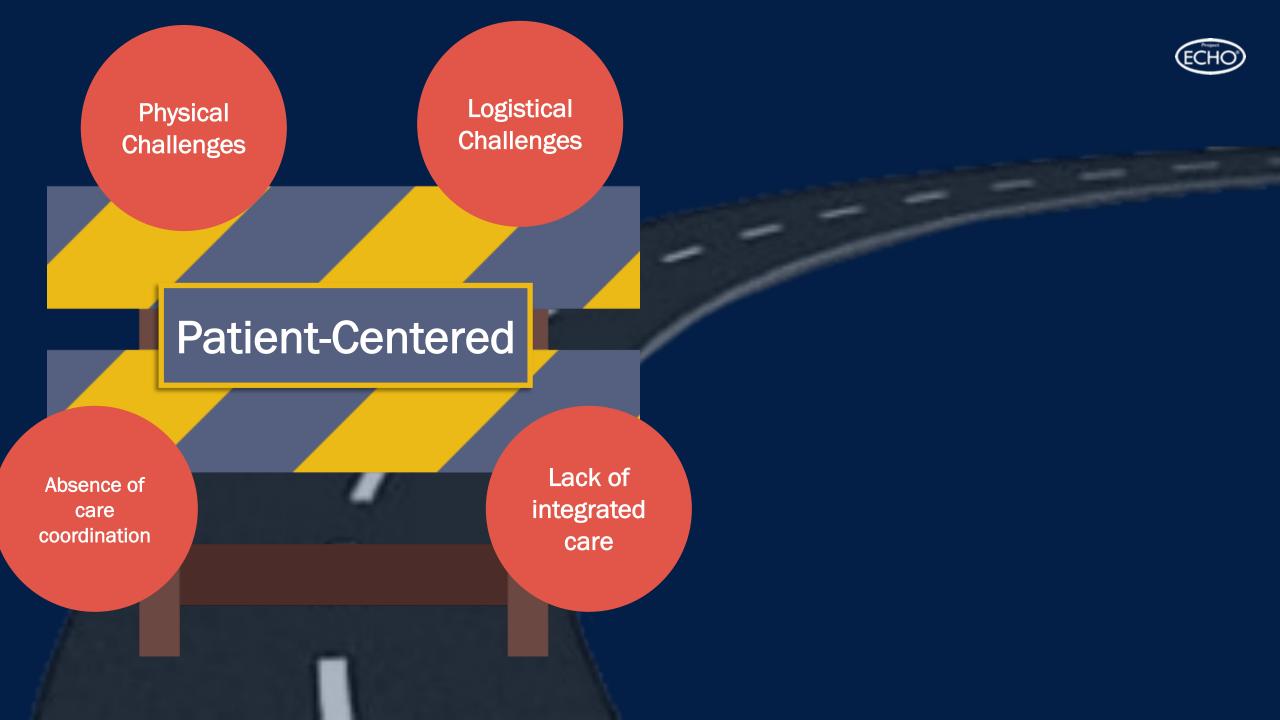


Improves their care experience



#### BARRIERS

- Patient-centered barriers
- Family-centered barriers
- Barriers related to the health-care system





Physical Challenges

Patient-Centered

- Medical equipment
- Accessibility



Logistical Challenges

Patient-Centered

- Travel to appointments
- Interruptions to provide care
- Vehicle to support safe transportation
- Constant visualization of the child, may require another adult



#### Patient-Centered

Absence of care coordination

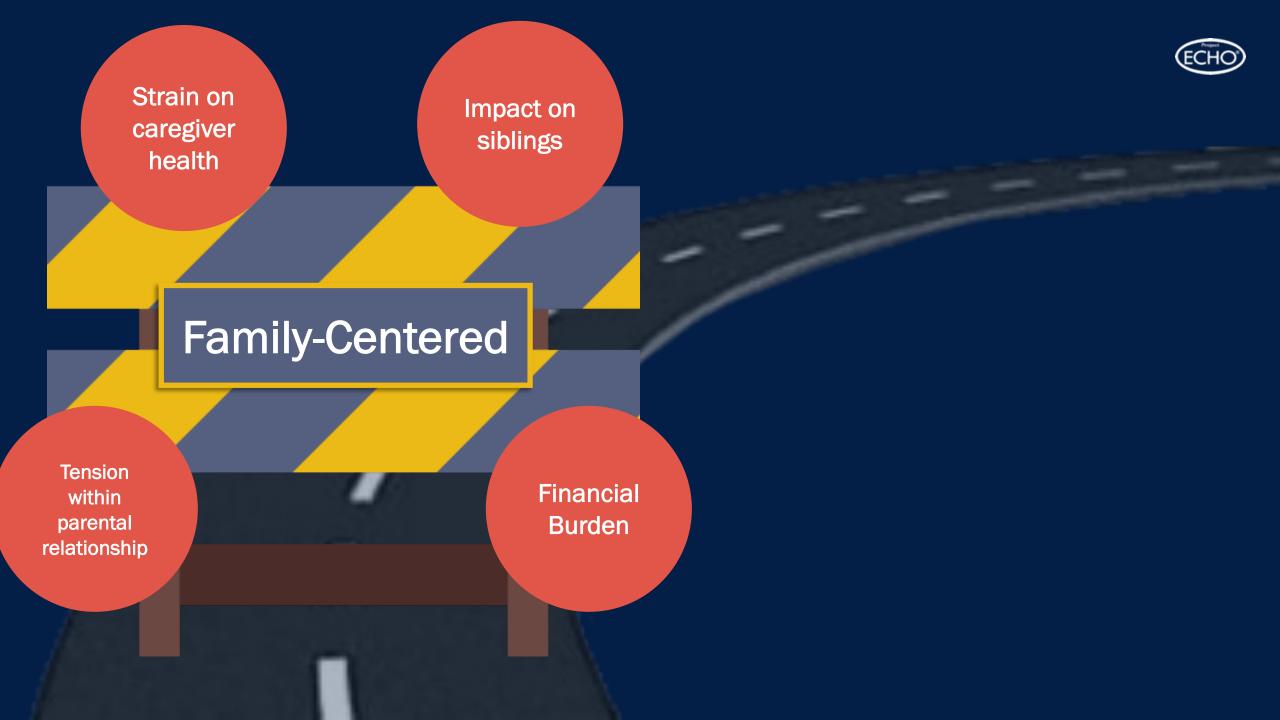
- Lack of streamlined goals of care
- Poor communication between providers and teams
- Multiple appointments



Patient-Centered

Lack of integrated care

Between primary care, tertiary care, home care, and community-based settings.





Strain on caregiver health

Family-Centered

Many experience adverse mental and physical health effects.



Impact on siblings

Family-Centered

Increased absenteeism from school, reduced participation in extracurricular activities, behavioural issues, and an unpredictable daily routine.



Family-Centered

Tension within parental relationship Stresses and worries,, advocating for their child, financial concerns, and caring for other siblings can place strain on the relationship.



Family-Centered

Additional costs and reduced income as parents may change their working arrangements to provide care for their child.

Financial Burden





- Lack of communication and integrated programs.
- Lack of family-centred care and partnership.
- Lack of communication between different professionals.
- Limited funding for Complex Care programs.
- Lack of transition programs from paediatric to adult care.



Appts.

Source: Kids Health Alliance

Travel Home





## Coordinate multiple appointments in one day





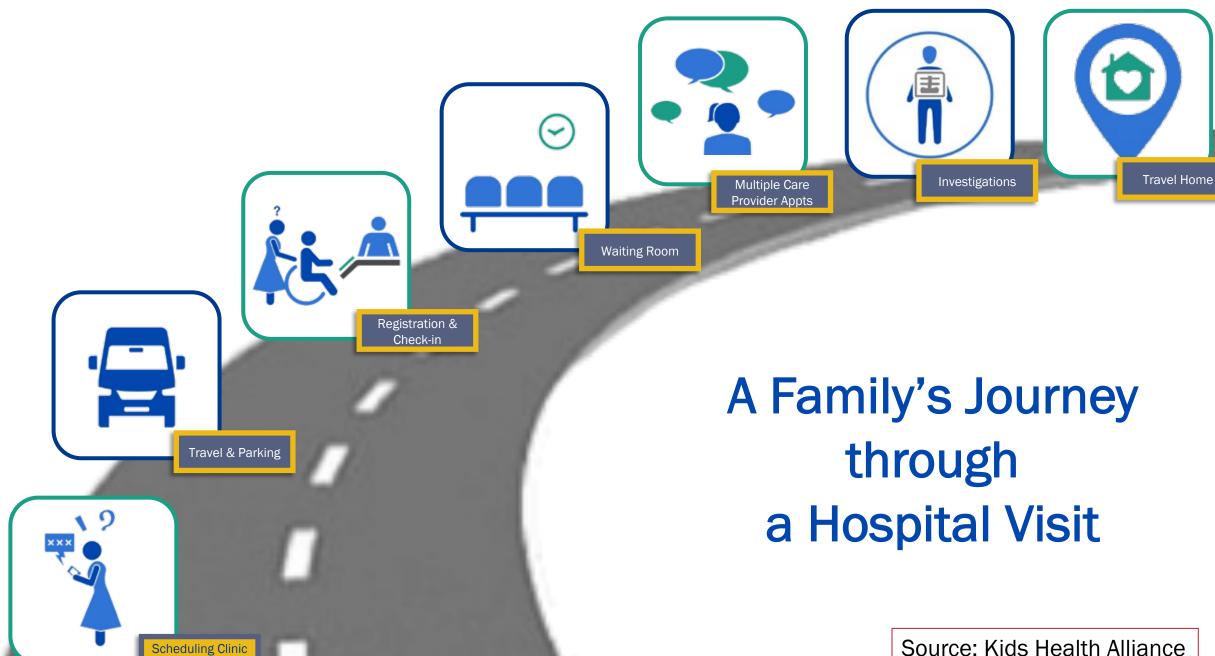
Find child care for siblings



Schedule time off



**Book transportation** 



Appts.

Source: Kids Health Alliance

Ensure all bags and equipment are packed in the car

Appointment times too early for out-of-town patients



Long commutes; must stop for suctioning

High cost of parking parking spots

Lack of accessible parking spots



#### Repeating information



clinic location



Lack of accessible doors, washrooms



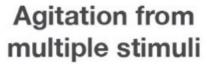


### Exposure to illness and infection

Lack of accessible space























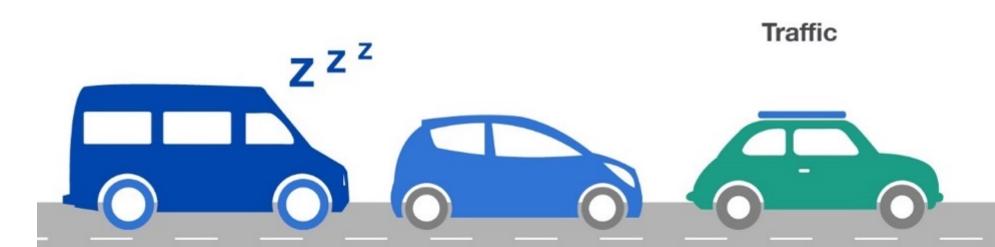








#### Feeling tired











## What are the objectives of a Complex Care program?



#### **Complex Care Program**

INTEGRATED CARE

COORDINATE CARE

FACILITATE COMMUNICATION

DELIVER PROACTIVE CARE

ADVOCATE FOR CHILDREN AND FAMILIES DEVELOP CLEAR GOALS OF CARE SUPPORT HOLISTIC CARE FOR THE WHOLE FAMILY

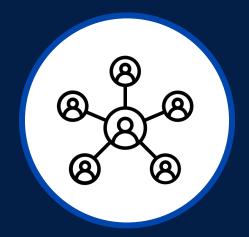
CCKO Functions of a Complex Care Clinic and Program Standard



#### **INTEGRATED CARE**



Contrast to "fragmented, episodic care"



Coordinated across team, organizations, systems



Encompasses unique child and family needs and preferences



## **COORDINATE CARE**



Led by key clinical worker



Partnership with child and family



## FACILITATE COMMUNICATION



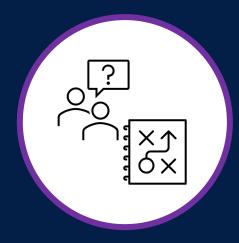
Key worker facilitates access and communication



Complex Care Plan



## DELIVER PROACTIVE CARE



Active identification of potential concerns and determining activities that will reduce the incidence or severity of the 'potential problem'



Screening, early intervention



## ADOVCATE FOR CHILDREN AND FAMILIES



Empower and support children and families over time, fostering their strengths without creating dependence.



Promote building capacity within the child/youth and family, and community teams



# DEVELOP GOALS OF CARE WITH THE CHILD AND FAMILY



Determining a child and family's overarching goals allows the health-care team to help meet these goals.



## SUPPORT HOLISTIC CARE FOR THE WHOLE FAMILY



Understand the child/youth and family structure and current services in place as well as the strengths and needs of each child/youth and their family.





# Who are members of a Complex Care Team?



Home and Community Care Support Services Coordinator

The key clinical worker is central to Complex Care programs. The worker is often a nurse practitioner whose primary responsibilities include:

- Being the primary point of contact for the child and family to address dynamic medical needs
- Developing longitudinal relationships to help ensure children and families goals are met and to focus on the child's quality of life
- Coordinating care by facilitating inter-disciplinary collaborative care amongst a variety of settings
- Facilitates the development and management of the child's Complex Care Plan in partnership with the family
- Engages other members of the care team as necessary

Role of the Key Clinical Worker



CAPHC Complex Care Community of Practice (CoP) April 2018





What is a care plan/shared plan of care?

## Care Plans for CMC

- A written document that outlines major medical information and care needs for a specific child
- "A comprehensive compiling of the information, in partnership with the family, needed to support coordination of care for the multiple needs of an individual child or youth, and his or her family"

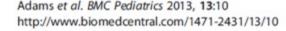
# What do they do?

- Improve family-clinician relationships by enhancing/validating information exchange
- Support provision of family-centered care
- Provide information that enhances the care relevant to both medical and social needs of CMC
- Component of care coordination

Adams S, Cohen E, Mahant S, Friedman JN, MacCulloch R, Nicholas DB. Exploring the usefulness of comprehensive care plans for children with medical complexity (CMC): a qualitative study. BMC Pediatr. 2013;13:10 4

Lion KC, Mangione-Smith R, Britto MT. Individualized plans of care to improve outcomes among children and adults with chronic illness: a systematic review. Care Manag J. 2014;15(1):11–25

Mann, E., Pyevich, M., Eyck, P.T. *et al.* Impact of Shared Plans of Care on Healthcare Utilization by Children with Special Healthcare Needs and Mental Health Diagnoses. *Matern Child Health J* **25**, 584–589 (2021). https://doi.org/10.1007/s10995-020-03101-3





#### RESEARCH ARTICLE

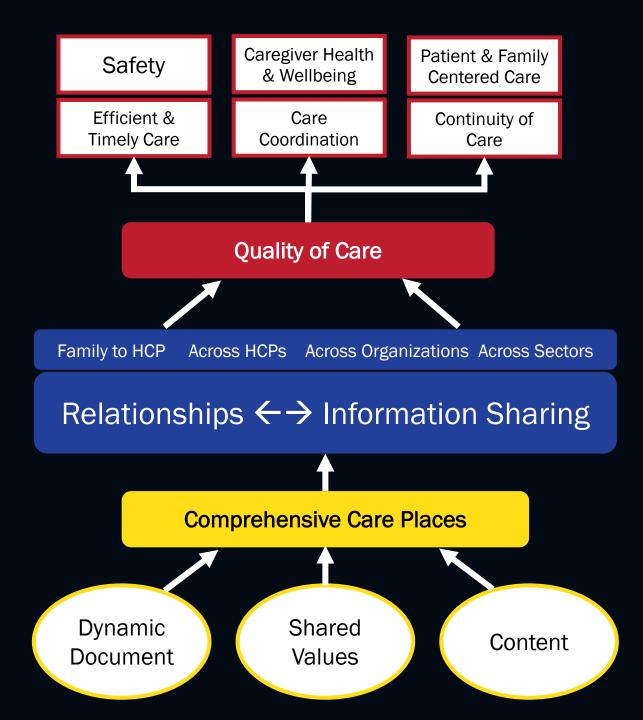
**Open Access** 

Exploring the usefulness of comprehensive care plans for children with medical complexity (CMC): a qualitative study

Sherri Adams<sup>1,2\*</sup>, Eyal Cohen<sup>1,3,4,5</sup>, Sanjay Mahant<sup>1,3</sup>, Jeremy N Friedman<sup>1,3</sup>, Radha MacCulloch<sup>6</sup> and David B Nicholas<sup>7</sup>

To explore how parents and Health Care Providers (HCPs) of CMC perceive the usefulness of a care plan

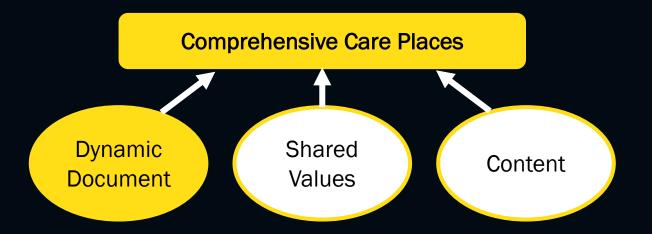
Interviewed 15 parents Focus Groups 15 HCPs











I think it's a comprehensive road map, or Google map, Coles [Cliff] notes version for complex patients, instead of a thick chart. That summarizes where you're at, and where you're going, and who to contact...

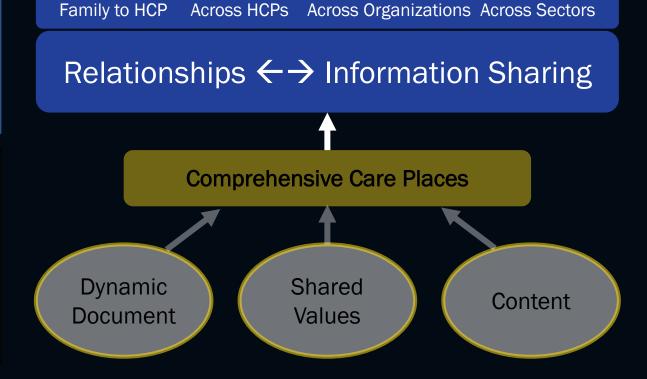
(Heath care provider)



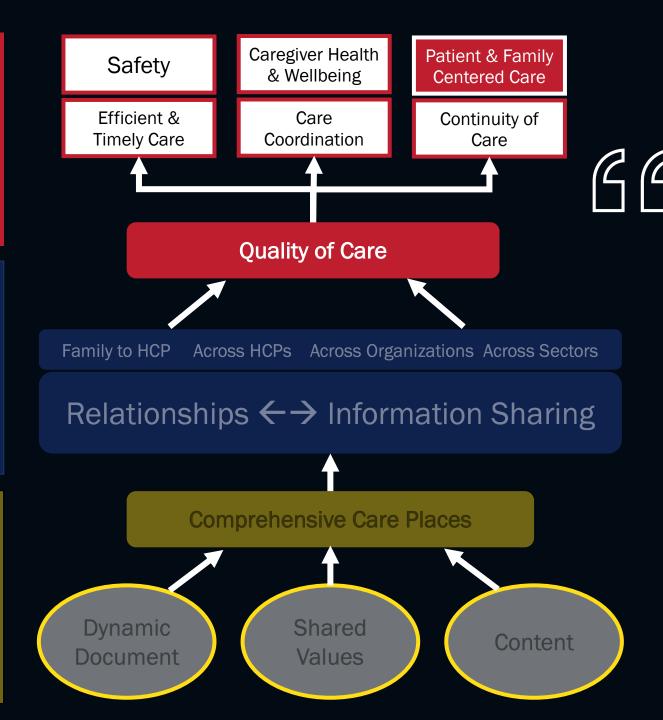
### Credibility

GG

I had this underlying anxiety that they weren't going to listen to me, how am I going to get them to understand me. Okay, screaming isn't working, what can I do to have them listen? That's gone. [The care plan] sort of levels out the playing field. We're both talking the same language. I may not have medical training, but I have this, I have this piece of paper. And we're speaking the same language. And it gives me a level of comfort, it gives me a level of security."



(Mother)





There is another benefit I wanted to add. When we are in the hospital and we see doctors for the first time [...] they start asking the parents questions. And I can't tell you how many times I've had to give her medical history with all its gory details. And it's extremely stressful for me. So this [the care plan] saves me from having to deal with that. [...] We all go through so much as parents, and we suffer a lot physically, emotionally, psychologically. So this document saves me." (Parent)

(Parent)





#### RESEARCH ARTICLE

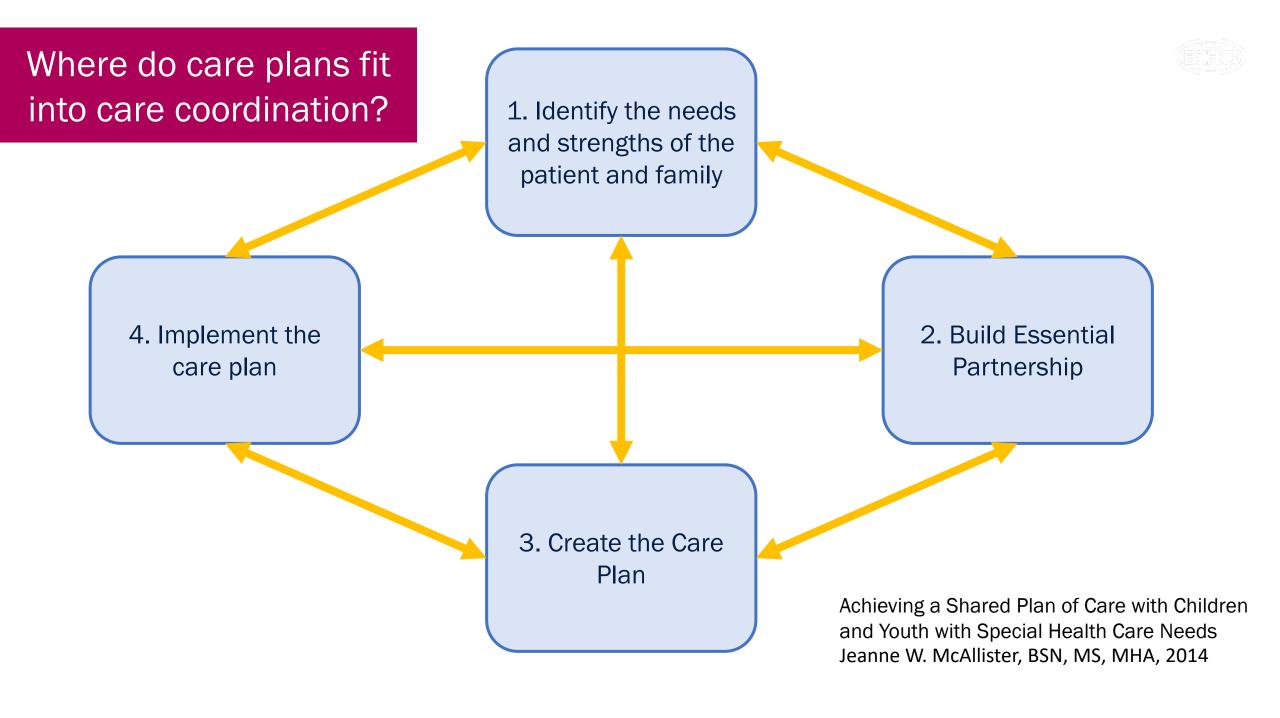
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Exploring the usefulness of comprehensive care plans for children with medical complexity (CMC): a qualitative study

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## Findings

- Care plans are a tool to build trust and relationships
- Family empowerment and credibility
- Starting point for HCPs
- United advocate









## **Shared Plan of Care:**

A Tool to Support Children and Youth with Special Health Care Needs and Their Families

Barbara Wirth, MD, MS, and Alex Kuznetsov, RD

This report outlines the principles for the shared plan of care model and recommends core content for an integrated and comprehensive shared plan of care for children, youth, and their families.





# Complex Care for Kids Ontario Standard: Medical Care Plan

Version Date: May 9, 2017





#### Medical Care Plan Standards: Content Short Form



The following are standard data elements to be included in a medical care plan:

Child Identification PHOTO	Communication		
Allergies/Reaction/Alerts	Technology/Technology Support		
Caregiver Names and contact	Current issues (systems based)		
Legal Guardian and contact	Adaptive seating		Consider
Advance Directives (indicate documented decisions)	Mobility aids		action list
Diagnosis	What I want for my child		
Short Non-medical Description of the child	(Commonly known as 'Patient care goals')		
Complex Care primary contacts: clinical key worker <sup>2</sup> ,	Immunizations		
physician	Signature (or electronic trail) of person updaticare plan Last updated (electronic trail suffici	_	
ER Management	Contact List		
Medication List	Family Physician/Paediatrician		
<ul><li>Scheduled and PRN Medication</li><li>Parenteral and/or G-tube feeds</li></ul>	<ul> <li>List of Physicians and Programs Follower Hospital or Community</li> </ul>	d at Ter	tiary
Growth parameters and unusual 'normals' in vital signs or physique	<ul> <li>Special Needs Strategy: Coordinated Secondinator</li> </ul>	rvice Pla	anning Care
	☐ LHIN Care Coordinators		





Complex Care Service Paediabric Medicine Care Plan Printed 2012-09-12

MOUSE, MICKEYIII

1993-01-10 CLEAVER, WARD

666 UNIVERSITY AVE.

TORONTO ON 416-513-5391

M1G2H3 0215785142

1944549

DIAGNOSIS:

Primary

genetic disorder not yet diagnosed Hypoxic ishchemic Encephalopathy

Other

right amblyopia.

chronic otitis media

S/P tonsilectomy and adenoidectomy

chronic lung disease

obstructive sleep agnea and central hypoventilation

Restrictive Cardiomyopathy

Dysmotlity (reverse peristalsis)

feeding intolerance



Mickey is girl who loves to go for rides in her motorized wheelchair and watch Harry Potter movies. She loves attention from her older bother and younger sister. She likes holding her cat (muffin) and listening to "Cold Play" on her iPod. She is allergic to penicillin. Resusitation status: NO CPR

#### Common Presenting Problems/Findings with Specific Suggested Managements

PROBLEM	SUGGESTED DIAGNOSTIC STUDIES	THERAPEUTIC RECOMMENDATIONS
anxiety	talk to patient in even tone of voice	talk to patient quietly - often - as required
fever over 37	take temperature	tepid sponge baths as required

MEDICATIONS: (2012-07-12) BUDESONIDE 250MCG - 1 puffs AERO Daily (by aerochamber Daily ) DOMPERIDONE - 5 mg GT TID (by G tube three times daily ) OMEPRAZOLE - 20 mg GT BID (by G tube two times daily ) VENTOLIN - 2 puffs AERO Q4H PRN (by aerochamber every 4 hours as required)

VITALS: (2009-07-09)

Height: 55.00 cm. (less than 3%ile) Weight: 55.000 kg. (52%ile)

Peptamen Jr. 250ml by Gastrostomy tube 5x/day run at a rate of 250ml/hr water flushes 20ml after all feeds and meds

extra free water 300ml/day

TECHNOLOGY SUPPORTS:

Oxygen (Setting: 1L with bipap) Ventilation (bipap 15/7 BUR 20)



Printed 2018-04-11



**Complex Care Service** Paediatric Medicine Care Plan



MOUSE, MICKEYIII F

1944549 CLEAVER, WARD

555 UNIVERSITY AVE.

TORONTO ON 416-813-5391

M1G2H3 0215785142



#### **DIAGNOSIS:**

#### **Primary**

Probable metabolic/genetic disorder

#### Other

Seizure Disorder

cortical visual impairment

Chronic Otitis Media

right choanal atresia

chronic lung disease

obstructive sleep apnea and central hypoventilation

Repaired tetralogy of fallot

Oral motor feeding problems/aspiration from above

**Chronic Constipation** 

Right hip subluxation

scoliosis

Pager:

Transfusion dependent anemia



#### CARE PLAN: **OVERVIEW**

Mickey loves to go for rides in her motorized wheelchair and watch Harry Potter movies. She loves attention from her older bother and younger sister. She likes holding her cat (muffin) and listening to "Cold Play" on her iPod. She is the happiest when outside in the park, in the pool or spending time with her family.

ALLERGY: Penicillin.

#### **COMPLEX CARE CONTACTS:**

Sherri Adams Dr. Eyal Cohen Paediatric Medicine Paediatric Medicine NP - Paediatrics Paediatrician Phone: 416-813-5787

Phone: 416 813-7654 ext 202626

sherri.adams@sickkids.ca

Justin Peralta Complex Care

Information Coordinator Phone: 416-813-7654 ext.

201197 Pager:

justin.peralta@sickkids.ca

#### **PATIENT CARE GOALS:**

Goal Date Set Target Date

Form 50225 (Rev. 2008/12) **CHART COPY** Page 1 of 9



## Medical Care Plan Standards: Process Short Form



The following are process standards for the development, sharing, maintenance, and use of medical care plans:

Child/family enrolled in the complex care program have a medical care plan

Most up-to-date medical care plan is made available in the child's medical record

Clinical key worker is responsible for the development and maintenance of the medical care plan in partnership with child/parent/and care team

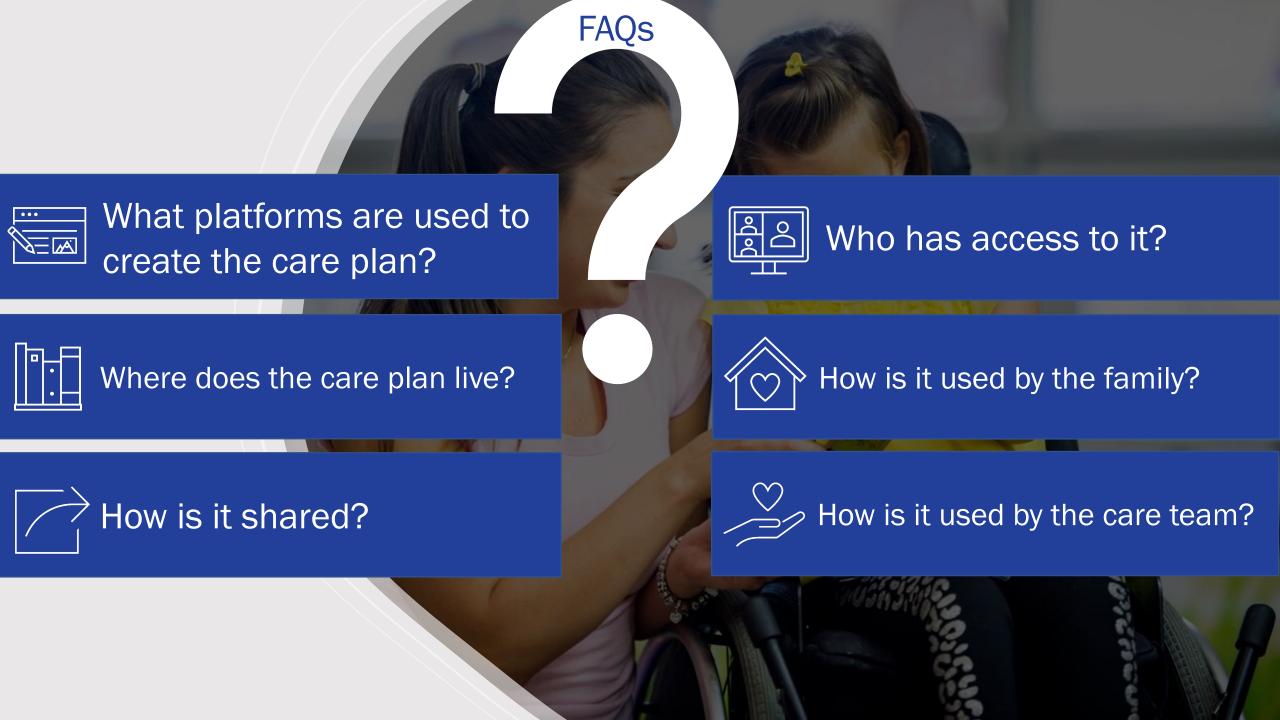
The child/parent receives a copy of the medical care plan and works with the clinical key worker to identify the individuals/teams (hospital and community) required to receive the medical care plan

Child/parent approves the information included in the medical care plan

Medical care plans shared with identified care team (hospital and community) members and parent

Parents coached and educated in the purpose and use of the medical care plans

Medical care plans reviewed and updated, as required, after each regularly scheduled complex care clinic visit, hospital admission, or as urgent changes arise



## **Future Directions**

- Sharing platforms
- Caregiver participation



#### How online, shared care plans promote partnership and cohesive care for children with medical complexity

Sherri Adams 1,3,4, Clara Moore 1,2, Madison Beatty 1,4, Blossom Dharmaraj 1, Arti Desai 5, Leah Bartlett 6, Erin Culbert 7, Eyal Cohen 1,3,8, Jennifer Stinson 1,4,9, Julia Orkin 1,3,8

1Child Health Evaluative Sciences, The Hospital for Sick Children, 2Temerty Faculty of Medicine, The University of Toronto, 3Division of Paediatric Medicine, The Hospital for Sick Children, 4Lawrence S Bloomberg Faculty of Nursing, The University of Toronto, 5University of Washington, 6Royal Victoria Hospital, Barrie, 7Credit Valley Hospital, Mississauga, 8Department of Paediatrics, The University of



#### **BACKGROUND**

- · Children with medical complexity (CMC) have high healthcare utilization across multiple care settings. often leading to challenges with information sharing
- Medical care plans have been used to improve care coordination amongst CMC
- While care plans are patient-centric, the content of the care plan is often controlled by the health care team, limiting the ability for parental input

#### **OBJECTIVES**

- 1) Provide parents and care team members (CTM) of CMC with online access and shared editing control of their child's care plan for 6 months
- 2) Explore subsequent perspectives and experiences

#### STUDY DESIGN

- 15 parents of CMC from a tertiary complex care program and 20 CTM of CMC
- Parents of CMC were invited to use a novel, online patient-facing platform to edit/share their child's care plan for 6 months
- · Parents and CTM participated in end of study semistructured interviews
- Grounded theory methodology was used

ONLINE SHARED CARE PLANS ALLOWED FOR **COHESIVE CARE** AND **TRUE PARTNERSHIP** BETWEEN PARENTS AND HEALTH CARE PROVIDERS THROUGH INCREASED PARENTAL AUTONOMY, ACCESSIBILITY, CONVENIENCE, AND SHARED UNDERSTANDING



#### **ILLUSTRATIVE QUOTES**

Accessibility and Convenience: Knowing that the information was easily accessible and that others could see and add to it. As a Complex Care mom, you are constantly repeating yourself whenever you're in any kind of doctor's appointment or talking with the teachers. It was awesome that whoever you invited could see everything. It's an easier way to share everything, P26

Autonomy: It [making edits to the car plan] was good! ... It's a good sense of control and understanding, taking over your child's care a little bit more. be able to add and change things that you wanted to. P22

Same Page: We would like to suspend her daily G-Tube feeds. I could just make a change on the app and I don't need to go to school to fill out forms Any change I make on the app, the school gets automatically updated Everybody can work on the same

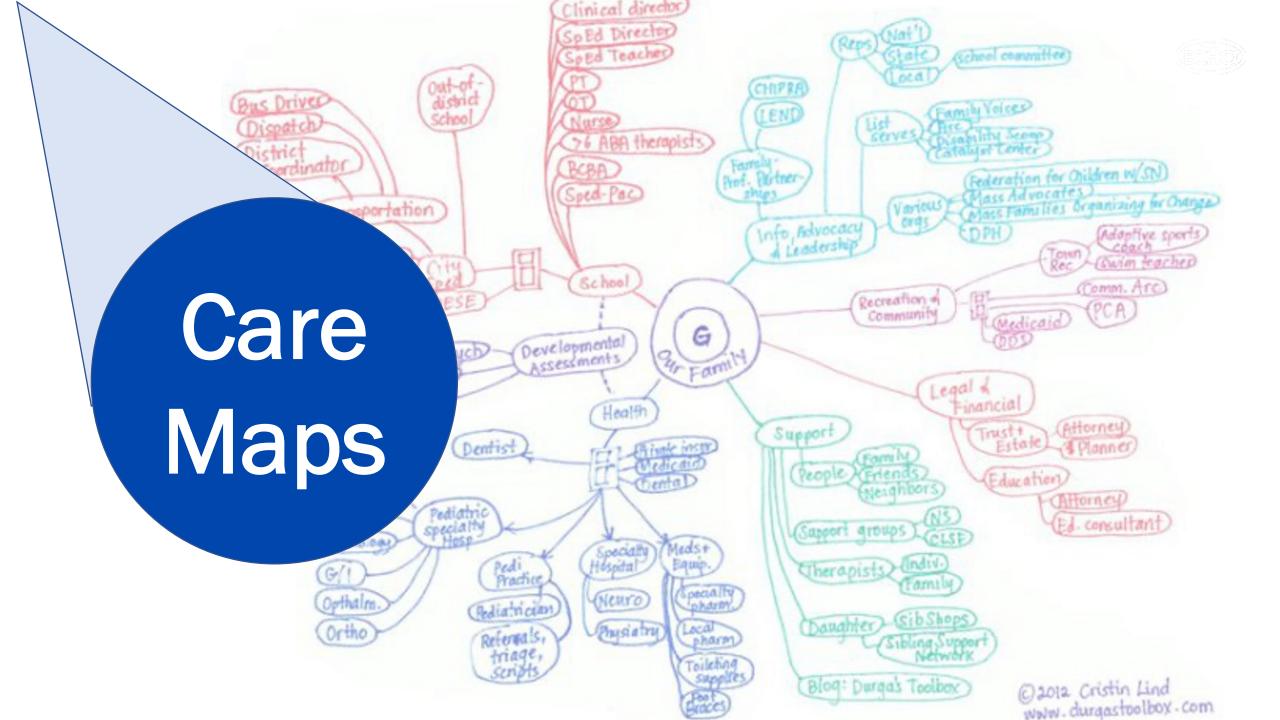
#### **ACKNOWLEDGEMENTS**

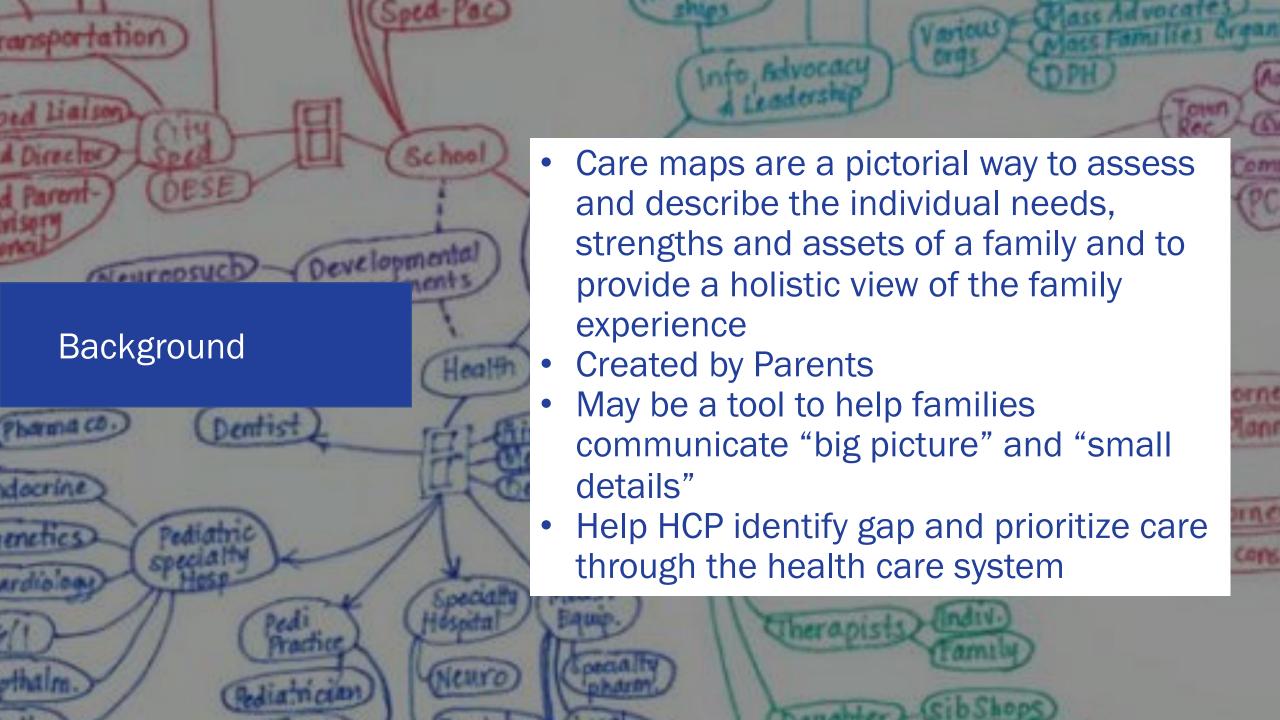
Thank you to the caregivers and CTM that participated in our study and the Ontario Center of Innovation for funding our research.

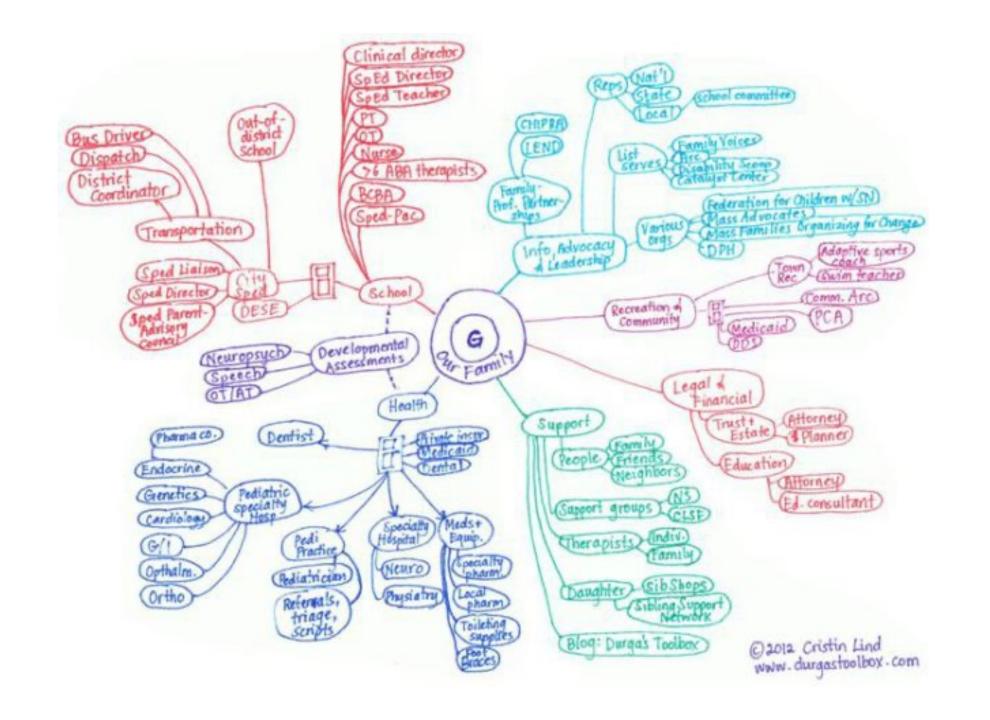








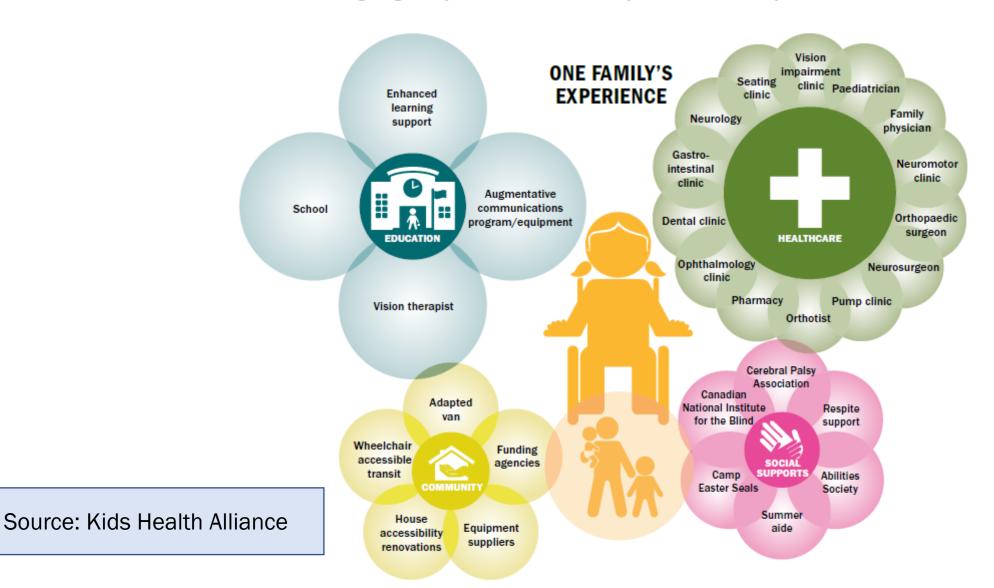




#### Navigating a complex system



The caregiving ecosystem for children and youth is more complex than for adults



## Developmental Medicine & Child Neurology

#### Care maps for children with medical complexity

Sherri Adams, David Nicholas, Sanjay Mahant, Natalie Weiser, Ronik Kanani, Katherine Boydell, Eyal Cohen

First published: 06 October 2017

https://doi.org/10.1111/dmcn.13576

Citations: 21

#### **Abstract**

#### Aim

Children with medical complexity require multiple providers and services to keep them well and at home. A care map is a patient/family-created diagram that pictorially maps out this complex web of services. This study explored what care maps mean for families and healthcare providers to inform potential for clinical use.

#### Method

Parents (n=15) created care maps (hand drawn n=10 and computer-generated n=5) and participated in semi-structured interviews about the process of developing care maps and their perceived impact. Healthcare providers (n=30) reviewed the parent-created care maps and participated in semi-structured interviews. Data were analysed for themes and emerging theory using a grounded theory analytical approach.

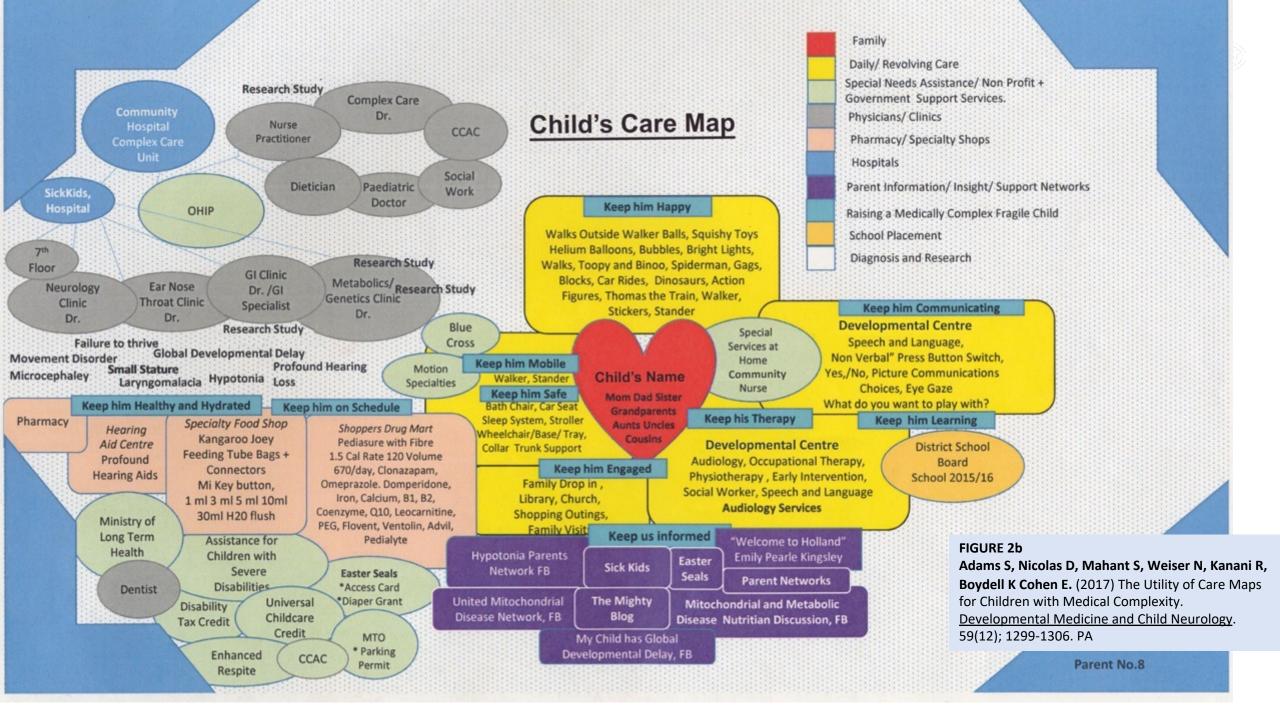
#### Results

Data analysis revealed 13 overarching themes that were further categorized into three domains: features (characteristics of care maps), functions (what care maps do), and emerging outcomes (benefits of care map use). These domains further informed a definition and a theoretical model of how care maps work.

#### Interpretation

Our findings suggest that care maps may be a way of supporting patient- and family-centred care by graphically identifying and integrating experiences of the family as well as priorities for moving forward.





#### **Co-Creation, Development** and Evaluation of Online Care Maps for Children with **Medical Complexity (CMC)**

Sherri Adams (1,2,3), Blossom G. Dharmaraj (2), Madison Beatty (2), Clara Moore (2), Arti Desai (4), Leah Bartlett (5), Erin Culbert (6), Eyal Cohen (1,2,7), Jennifer Stinson (2,3,8), and Julia Orkin (1,2,7)

Affiliations: (1) Division of Pediatric Medicine, SickKids, Toronto, Canada, (2) SickKids Research Institute, Toronto, Canada, (3) University of Toronto, Lawrence S Bloomberg Faculty of Nursing, (4) University of Washington, Seattle, Washington, USA, (5) Royal Victoria Hospital, Barrie, Canada, (6) Credit Valley Hospital, Mississauga, Canada, (7) University of Toronto, Department of Pediatrics, (8) Department of Anesthesia and Pain Medicine, SickKids, Toronto, Canada,



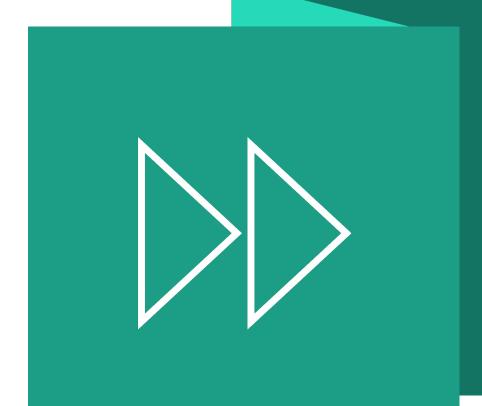












## **Transition to Adult Care**

## Implications to inform policy and practice: Transitioning of YMC to Adult Care



#### Review

Lin Li\*, Marissa Bird, Nancy Carter, Jenny Ploeg, Jan Willem Gorter and Patricia H. Strachan

# Experiences of youth with medical complexity and their families during the transition to adulthood: a meta-ethnography



Contents lists available at ScienceDirect

Journal of Pediatric Nursing

journal homepage: www.pediatricnursing.org



Transition to adult care for youth with medical complexity: Assessing needs and setting priorities for a health care improvement initiative

Lin Li, RN, BFA, BScN a,b,\*, Anna Polanski, RN(EC), MN-NP (Paediatrics) a,c, Audrey Lim, MD, FRCPC, MSc b,d, Patricia H. Strachan, RN, PhD a

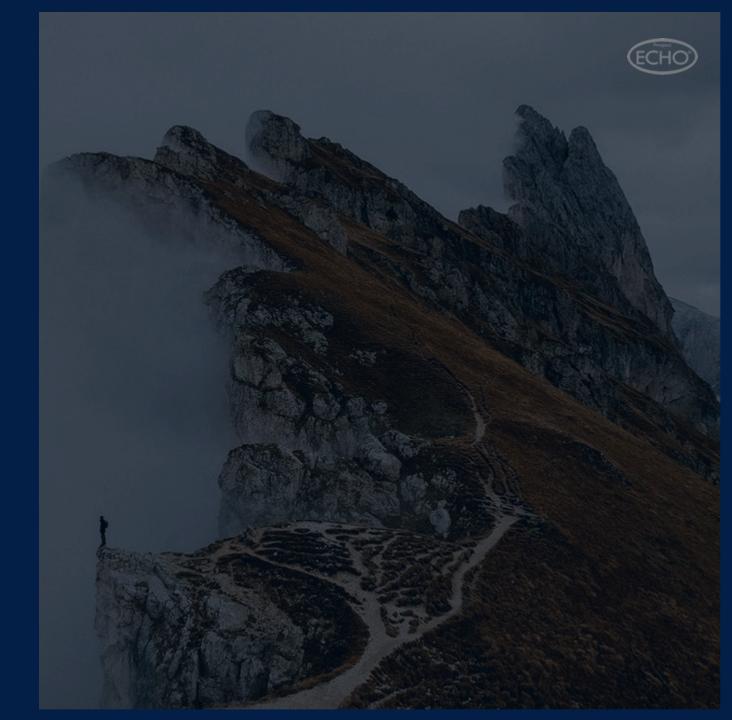
Transition to me equals

sheer fear...It's like
jumping off a cliff. And if
you're really well prepared

– you might have a
parachute or a trampoline
along the way for a short
respite period there...

(Parent)

Schultz RJ. Parental experiences transitioning their adolescent with epilepsy and cognitive impairments to adult health care. (2013). *Journal of Paediatric Healthcare*, 27:359–66.





It was like after all those years we had depended on the (pediatric) hospital to help us, and now we had the impression that we were on our own. No one knew us, we were nothing. We were a number.

(Parent)

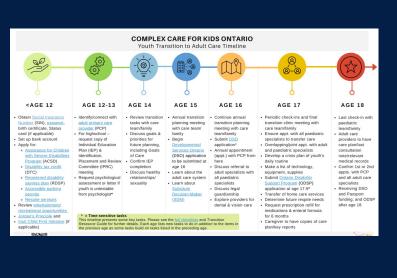
Davies H, Rennick J, Majnemer A. (2011). Transition from pediatric to adult health care for young adults with neurological disorders: parental perspectives. *Canadian Journal of Neuroscience Nursing*, 33:32–9.



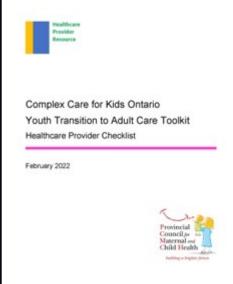


#### **Content of the Transition Toolkit**

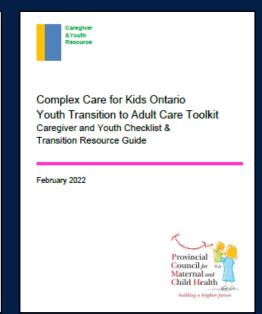
#### **Timeline**



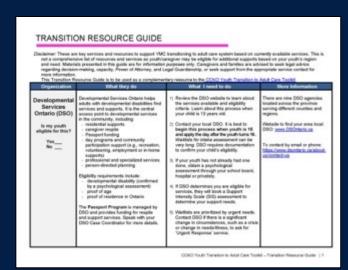
#### **HCP Checklist**



## Youth & Caregiver Checklist



#### **Transition Resource Guide**



#### COMPLEX CARE FOR KIDS ONTARIO

Youth Transition to Adult Care Timeline



#### <AGE 12

- Obtain <u>Social Insurance</u> <u>Number</u> (SIN), <u>passport</u>, birth certificate, Status card (if applicable)
- · Set up bank account
- Apply for:
  - Assistance for Children with Severe Disabilities
     Program (ACSD)
  - Disability tax credit (DTC)
  - Registered disability savings plan (RDSP)
  - Accessible parking permits
  - · Respite services
- Review <u>entertainment/</u> <u>recreational opportunities</u>
- · Jordan's Principle and
- <u>Inuit Child First Initiative</u> (if applicable)



#### AGE 12-13

- Identify/connect with <u>adult primary care</u> <u>provider</u> (PCP)
- For highschool request copy of Individual Education Plan (IEP) & Identification, Placement and Review Committee (IPRC) meeting
- Request psychological assessment or letter if youth is untestable from psychologist\*



#### **AGE 14**

- Review transition tasks with care team/family
- Discuss goals & priorities for future planning, including Goals of Care
- Confirm IEP completion
- Discuss healthy relationships/ sexuality

#### **AGE 15**

- Annual transition planning meeting with care team/ family
- Begin
   <u>Developmental</u>

   <u>Services Ontario</u>
   (DSO) application
   to be submitted at age 16
- Learn about the adult care system
- Learn about
   Subsitute
   Decision-Maker
   (SDM)

#### **AGE 16**

- Continue annual transition planning meeting with care team/family
- Submit DSO application\*
- Annual appointment (appt.) with PCP from here
- Discuss referral to adult specialists with all paediatric specialists
- Discuss legal guardianship
- Explore providers for dental & vision care

## AGE 17

(20)

0

- Periodic check-ins and final transition clinic meeting with care team/family
- Ensure appt. with all paediatric specialists to transfer care
- Overlapping/joint appt. with adult and paediatric specialists
- Develop a crisis plan of youth's daily routine
- Make a list of technology, equipment, supplies
- Submit Ontario Disability <u>Support Program</u> (ODSP) application at age 17.5\*
- · Transfer of home care services
- · Determine future respite needs
- Request prescription refill for medications & enteral formula for 6 months
- Caregiver to have copies of care plan/key reports



#### **AGE 18**

- Last check-in with paediatric team/family
- Adult care providers to have care plan/last consultation note/relevant medical records
- Confirm 1st or 2nd appts. with PCP and all adult care specialists
- Receiving DSO and Passport funding, and ODSP after age 18

#### \* = Time-sensitive tasks

This timeline presents some key tasks. Please see the <u>full checklists</u> and <u>Transition</u> Resource Guide for further details. Each age lists new tasks to do in addition to the items in the previous age as some tasks build on tasks listed in the preceding age.







## Practical Tips: How can I use this Toolkit?



- The two Transition checklists are *fillable* can be downloaded, saved and/or printed
- Inform families of the checklist as soon as you can and work in parallel with HCPs/ Complex Care team based on age
- Use the checklist as a guidance and consider youth and family's goals and expectations in the transition process
- Keep track of adult providers (PCP and adult specialists)
  as they are identified
- The bolded tasks are to be prioritized in the transition journey, putting deadlines is helpful to ensure tasks are not missed (prompting to set appt dates on caregiver's phone)



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## **Learning Objectives**

Describe
challenges in
care coordination
for children with
medical
complexity (CMC)
and their families

Describe members of clinical team and role of key clinical worker Discuss the utility of care plans and care maps

Review an approach to transition to adult care for CMC



# THANK YOU