

# WCHN Rehabilitation Orthopaedic Service: A new model of care



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**Government of South Australia**  
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# Introduction

- Children & young people with complex neuromuscular conditions may develop secondary progressive musculoskeletal pathology over time
  - Adverse health outcomes
  - Impact on function, participation & quality of life
- Orthopaedic surgery is the mainstay of treatment
  - Risks related to co-morbidities &/or social complexities

(Graham et al 2021, International Committee on Perioperative Care for Children with Medical Complexity 2020, Thomason and Graham 2013)

# Nella:14yo from country SA with bilateral CP (GMFCS III)

Mo has mental & physical health issues

Limited family support

Hx of DCP involvement

Attends school

Community PT

Support workers



Disengaged from local medical support

Mobility equip getting small

No ADL equip

Underweight

ASD/ADHD traits

Referral for  
?bilateral LL  
surgery



# A need for change

- Challenges & inefficiencies with existing model of care
- Increasing medical & social complexity  
(Antolovich et al 2022)
- NDIS implementation→change in Health/Disability responsibilities
- Frequent post-operative complications & adverse events
- Consumer dissatisfaction
- Reactive care→staff burnout & cost inefficiencies

# Timeline for change

**Jan-March 23**

Risk Ax  
Project Officer appointed  
MOC development

**March-April 23**

Consultation with key stakeholders

**April 23**

Feedback incorporated into MOC

**July 23**

Presented to Executive Team

Model of Care (MOC) developed through:

- Literature review
- Collaboration with key WCHN stakeholders
- Benchmarking with tertiary centres interstate & in New Zealand



**Aug 23**

MOC & additional funding endorsed by CEO

**Oct 23-Jan 24**

Service implementation

**Feb 24**

Service commencement & onboarding new staff

# Service scope

Assess & manage children and young people who:

- Are likely to benefit from surgical intervention to manage secondary progressive lower limb musculoskeletal pathology **and**
- Are seen in the Rehabilitation Orthopaedic Clinic **and**
- Live with the following conditions:
  - CP
  - ABI
  - SCI
  - Neuromuscular conditions
  - Developmental/genetic/chromosomal syndromes resulting in physical disabilities
  - Neural tube defects

# The team

- Allied health-led, managed by Paed Rehab Dept
- In-kind support
  - Orthopaedic Surgeon
  - Orthopaedic Nurse Consultant
  - Paediatric Rehab Consultant
  - Administrative staff- Ortho Surgery and Paed Rehab Depts
  - Allied Health Assistant
  - Dietitian
- Additional funding endorsed
  - Coordinator AHP3 0.6FTE
  - PT AHP2 1.0 FTE
  - SW AHP2 0.4 FTE
  - OT AHP2 0.2 FTE
  - Orthotics AHP2 0.2 FTE



# Guiding principles

- Early detection & monitoring of musculoskeletal pathology
- Care provided is trauma-informed, connected & child/young person & family centred
- Physical, psychosocial, personal & environmental factors equally influence health, function & childhood development
- Current pain science knowledge is applied
- Optimal outcomes are achieved through collaboration & partnerships with all key stakeholders
- Ax & optimization of health, well-being & community supports
- Engagement in shared decision making
- Align with best practice & be innovative, contemporary & responsive

(Antolovich et al 2022, International Committee on Perioperative Care for Children with Medical Complexity, 2020)

# Service activities

- Gather information to commence early Ax, screening, planning & referrals to other team members/teams as required
- Share information with patients/families re: what to expect in the clinic
- Rehabilitation Orthopaedic Clinic
- Liaison with community therapists & actively involved health care professionals
- Facilitate assessment & optimization of health, well-being & community supports
- Facilitate shared decision-making
- Pre-operative planning
- Peri-operative care
- Post-operative monitoring, support & therapy
- Surveillance until 2 years post-operation

# Key changes

- Dedicated team with appropriate skills & experience to provide holistic & coordinated Ax & care
- Defined timeframe for care
- Increased efficiency & effectiveness of Clinic appointments
- Continuity of care & collaboration with all key stakeholders across pre-, peri- and post-operative phases
- Focus on pre-operative planning
- Health support to access and hire equipment

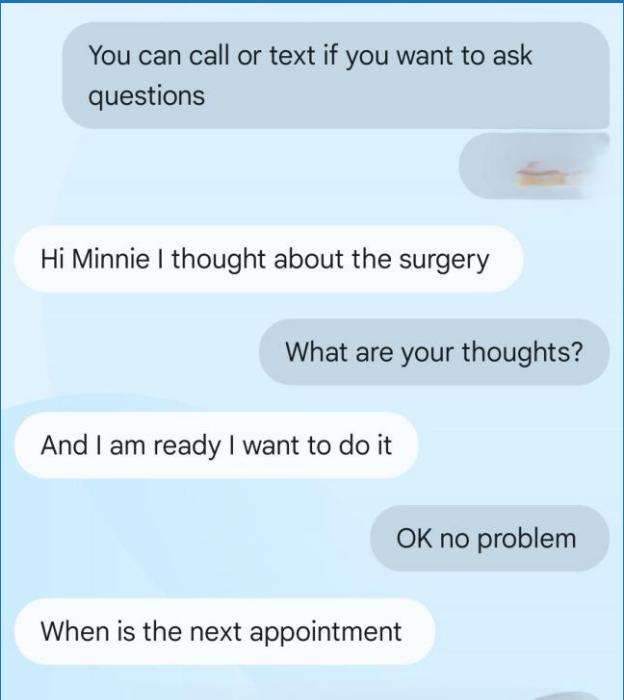
# Key changes

- Improved & consistent scheduling of theatre lists
- More inclusive & disability-aware inpatient care
- Commonly occurring post-operative issues are proactively addressed
- Strategies to decrease the number of hospital appointments & minimize PED attendance &/or hospital readmission
- Greater equity of post-operative health-funded therapy
- Surveillance program
- Data collection

# Coordinator

“You think of things when you leave”

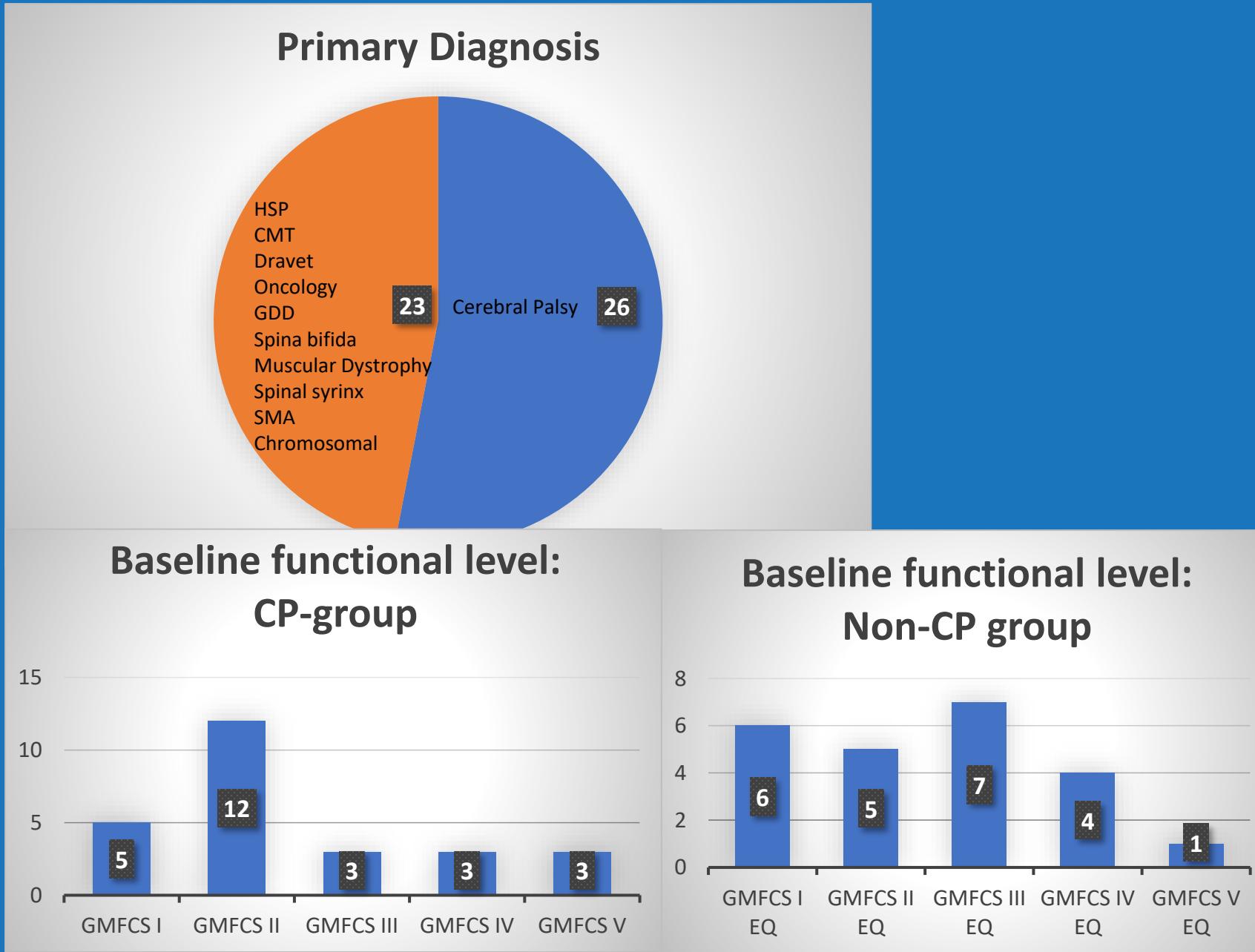
(Parent after Rehab Ortho appointment)



Hi minne um idk if I will be able to make it  
can we do 25 July instead please



# Patient data



# Surgery data

Surgery type		Number of surgeries
Multi-level, gait goals	Bony +/- soft tissue	5
	Soft tissue only	3
Single-level, gait goals	Bony +/- soft tissue	5
	Soft tissue only	14
Single-level hip reconstructive, care/comfort goals		11
Single-level soft tissue, care/comfort goals (non-ambulant)		3
Toe only		2
Guided growth only		8
Exchange or removal of hardware		3
<b>Total</b>		<b>54</b>

# Feedback

## From consumers:

“We **couldn’t have done this without your team**. We are really grateful”

“This surgery experience has been much more **organised and supported** (second surgery for revision). We are happy to get the **rehab hydrotherapy through WCH** as previously we depended completed on NDIS funded supports which utilised a lot of funding”

“I am happy to have received **nursing support** to learn how to complete moving for personal cares as we did not receive this education previously”.

“To Minnie and the wonderful new Allied Health Team, **your support** has made a huge difference to our whole experience with ()’s surgery and admission. We have so appreciated your involvement. What a great asset you are to WCH! Thank you for your **kindness and attention and for being so available** to us. Many, many thanks, () and family”

## From community service providers:

“So glad we can all **work as a team** to make the process as **smooth as possible for the child**”

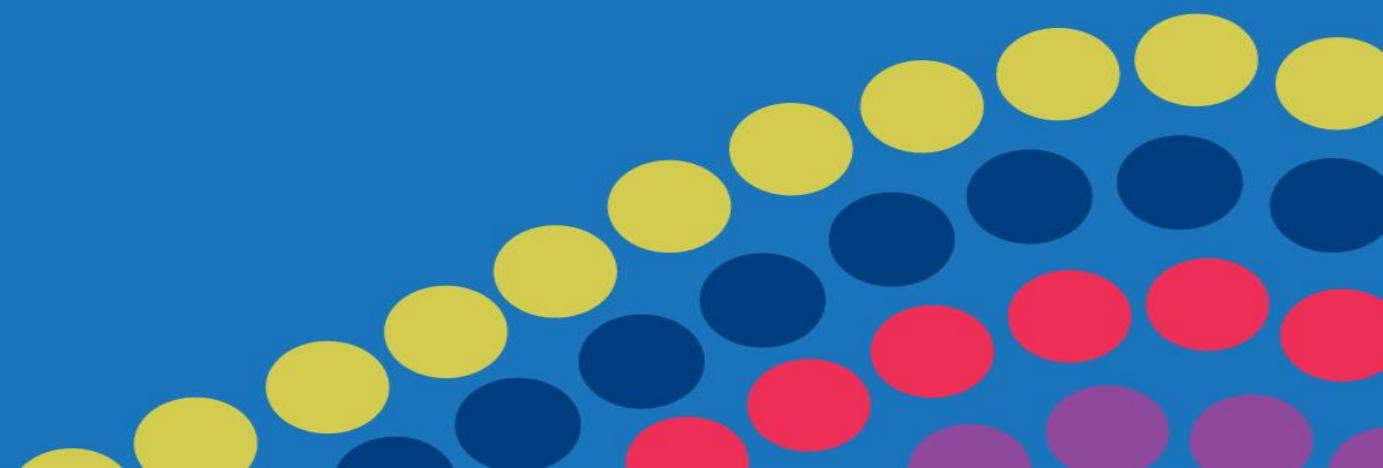
“Thank you for the update and your **consistent communication** throughout this process, it has been an absolute pleasure to work with your rehab team.”

# Where to from here...

- Consumer health information development e.g. social stories, videos and handouts
- Review and update of post-operative protocols
- Development of protocol for outcome measures
- Data collection
- Research opportunities
- Ongoing service evaluation and development

- Stay tuned for more information from Minnie in 2 years!



# Questions

## Contacts

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# References

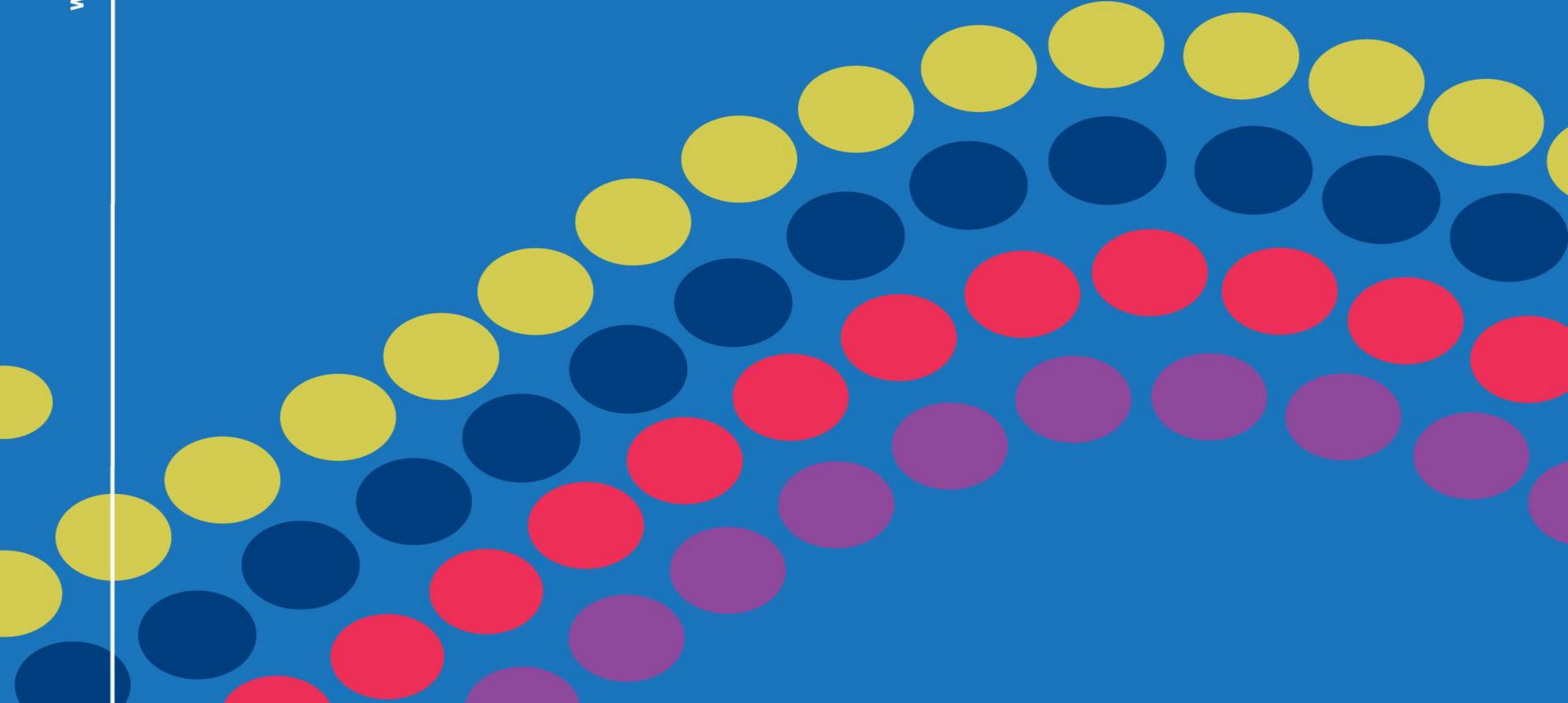
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Thank you





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