

## Hip Surveillance For children with Cerebral Palsy: Strategies and Technologies to Overcome Barriers to Implementation.



## The Melbourne Perspective: Hip Surveillance Integrated with Clinical Care And Clinical Research.





# The Melbourne Perspective: The CP Team

- Motion Analysis Laboratory: Hugh Williamson Gait Laboratory.
- Physiotherapists in MAL and in CP Surgical Team.
- Pam Thomason (HW Gait Lab) and Kate Willoughby (HS)
- 3 surgeons major interest in CP: Erich Rutz, Abhay Khot, Kerr Graham
- Statewide service: population 6.7 million
- Clinical and Research Interest in CP Hip.



# Physiotherapists Play a Key Role in Melbourne

Physical Therapists Are Key to Hip Surveillance for Children with Cerebral Palsy: Evaluating the Effectiveness of Knowledge Translation to Support Program Implementation

[Stacey Miller](#) [Maureen O'Donnell](#) [Kishore Mulpuri](#)

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## The central role of PTs

- Excellent communication skills: avoid surgical jargon
- Trusted more than surgeons.
- Central to all our clinical and research efforts.
- Can not imagine working without PT support!

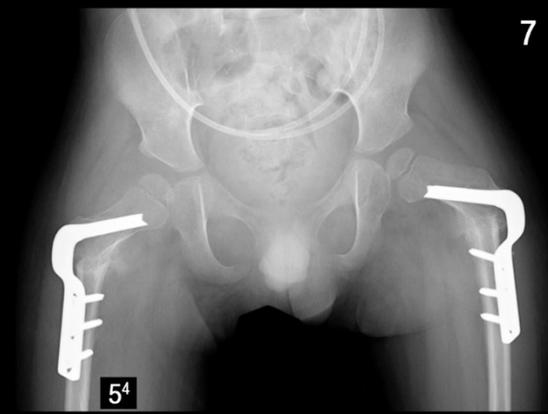
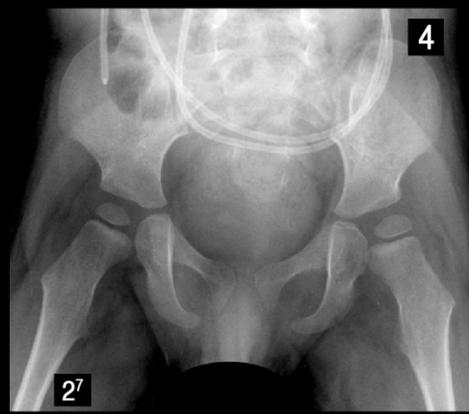




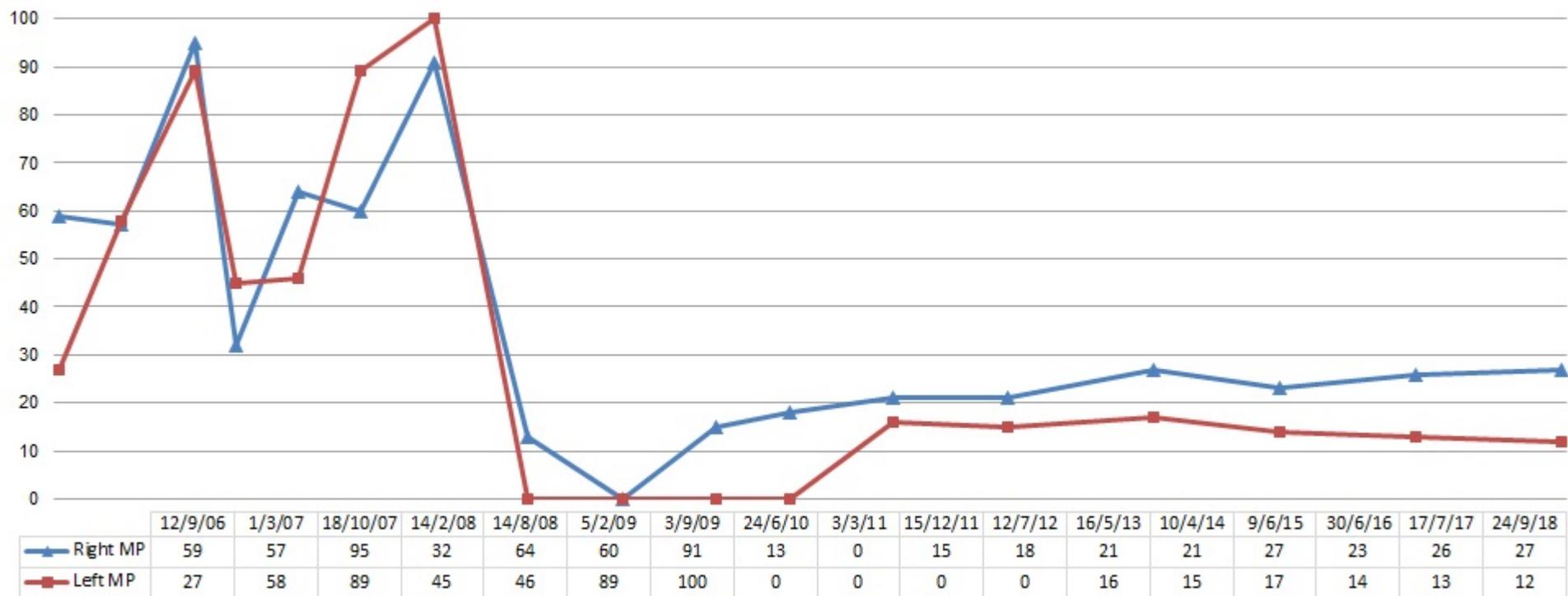
# Physiotherapist Clinical Roles

- PT Run clinics: very popular with families!
- CP Multidisciplinary Team clinics.
- Statewide HS Service
- The central link in communication with other providers & services.
- Pre-operative assessment and optimization of health status.
- Peri-operative equipment needs assessments
- Post-operative monitoring: casts, braces, WB status





# The value of a “run chart” in Hip Surveillance: Improves communication and planning.



# Hip Watch

## The Victorian CP Hip Surveillance Network

- The outcome of a **knowledge translation** project
- Development and **co-design** with parent and clinician stakeholders
- A **collaboration** between The Royal Children's Hospital, Monash Children's Hospital and the Victorian Paediatric Rehabilitation Service
- Hip surveillance **integrated** within the service already involved in the child's care



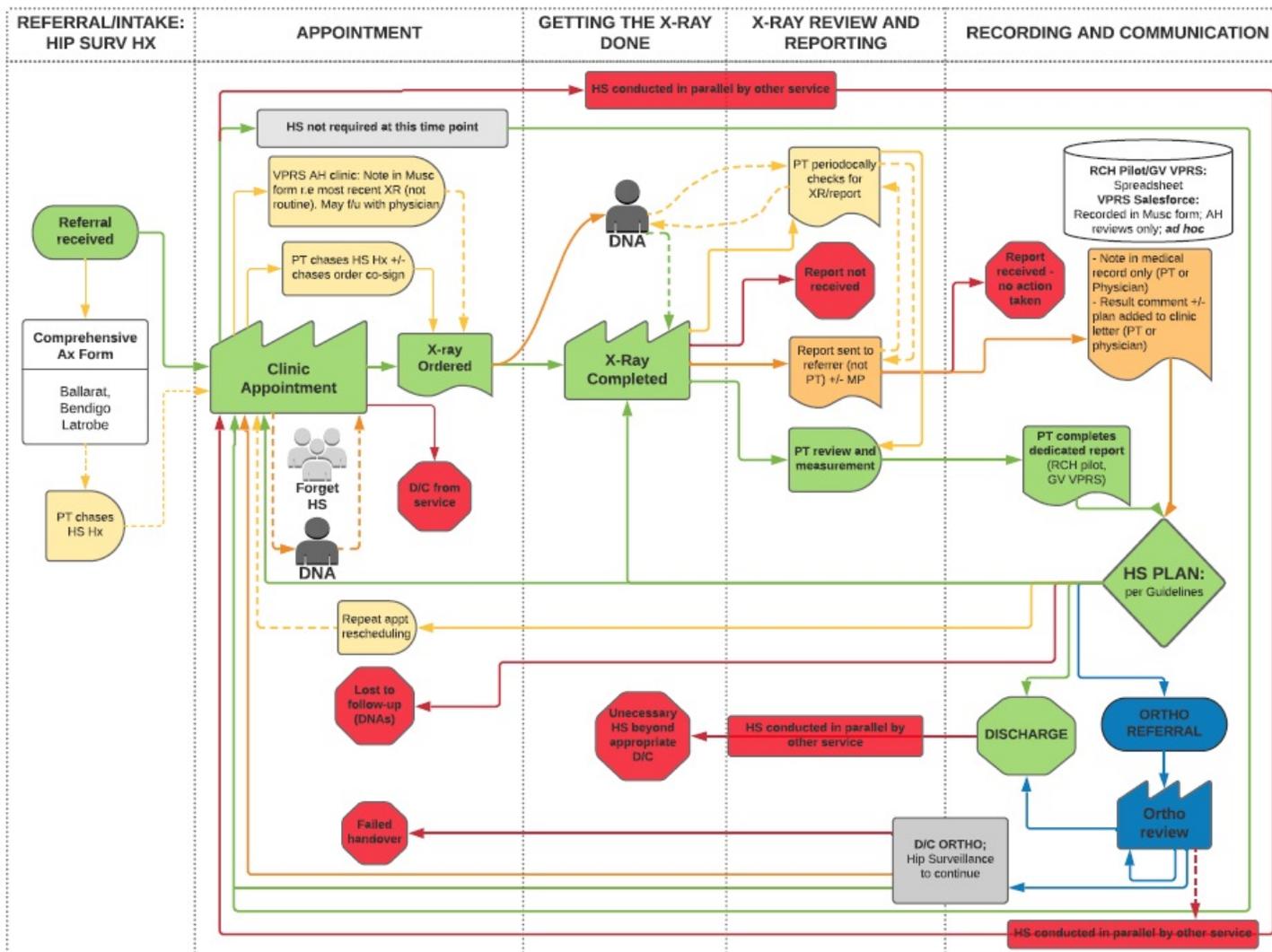


## How did we get there? Physiotherapist Led Research:

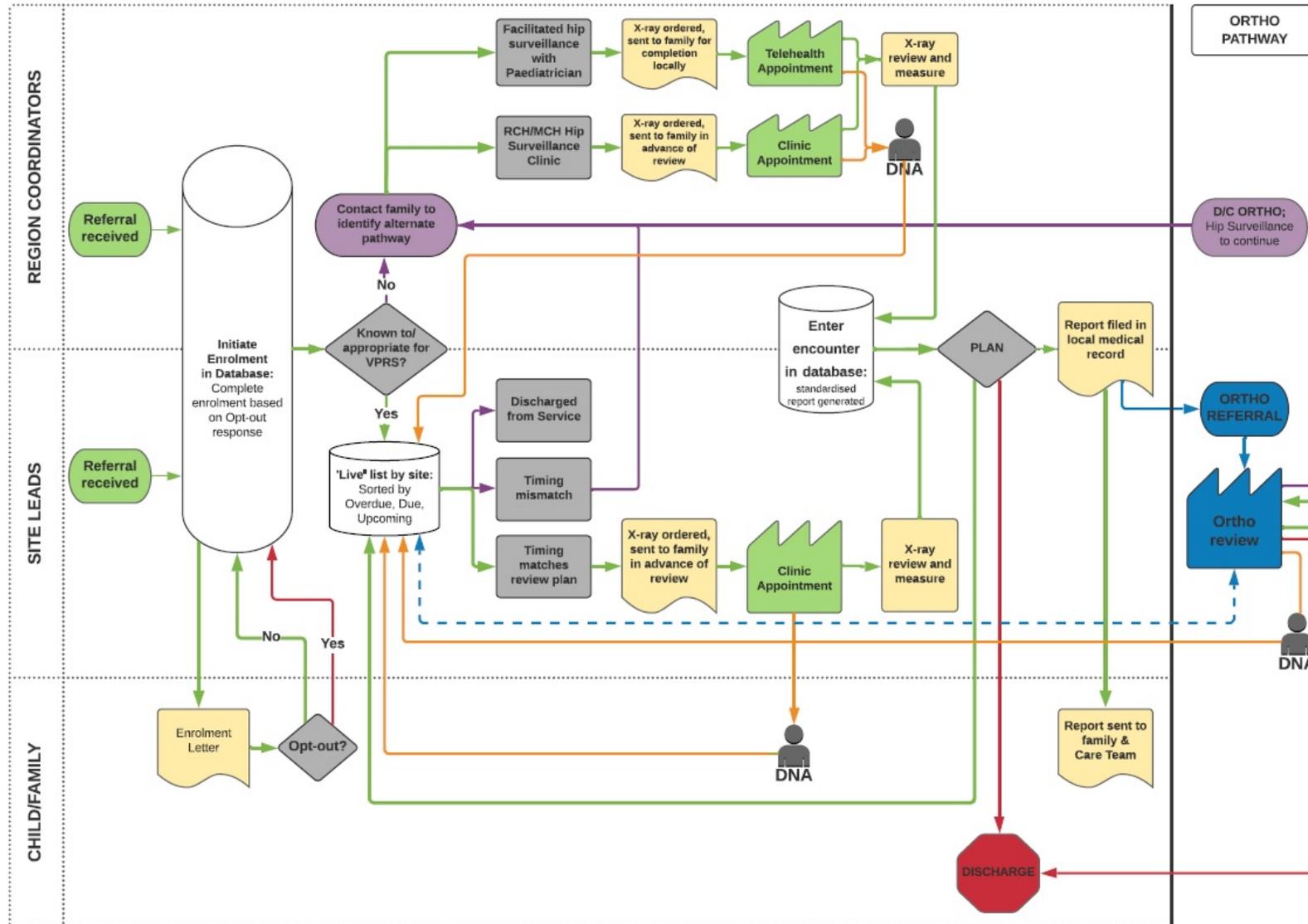
1. Willoughby KL, Toovey R, Hodgson JM, Graham KH, Reddihough D. **Health professionals' experiences and barriers encountered when implementing hip surveillance for children with cerebral palsy.** J Paediatr Child Health 2019;55(1):32-41 doi:10.1111/jpc.14108
2. Toovey R, Willoughby KL, Hodgson JM, Graham HK, Reddihough DS. **More than an X-ray: Experiences and perspectives of parents of children With cerebral palsy when engaging in hip surveillance.** J Paediat Child Health. 2019 doi: 10.1111/jpc.14537



## Process mapping to identify barrier and hurdles



# NEW processes to address barrier and hurdles



# Hip Watch

## The Victorian CP Hip Surveillance Network

### Key program elements:

- Centralized data collection through 'HipWatch' database
  - Planned linkage with statewide CP register – ensure no child is missed
  - Identification of 'responsible' service – reduce duplication of hip surveillance
  - Facilitate standardised reporting to parents and the child's Care Team
- Program Coordinators (2) – Physiotherapists
  - Physio-led hip surveillance clinics
  - Mentor/advisor to regional sites
- Education for clinicians
- Information sharing resources – for parents/caregivers



# Physiotherapist Research Roles

- CHOP 1 and 2: Central role in collecting data
- Communication with Sick Kids Toronto team.
- PI Melbourne CP-HIP RCT: soft tissue vs bony surgery
- Responsible for everything bar the surgery!
- Early identification of potential participants, counselling, randomization, enrollment, all facets of data collection & follow up
- Review and Revision of Australian HS Guidelines



# PT Research Roles: Clinical Exam Data CHOP/RCT



# Physiotherapist Research Roles: GMFCS & GMFM

1. The No 1 predictor of *prevalence* of hip displacement is GMFCS
2. The No 1 predictor of the *success of surgery* for HD is GMFCS
3. There is almost no information in the literature about the effects of either hip displacement or surgery for hip displacement, on GMFM.
4. For CHOP 1 & 2 we need accurate GMFCS
5. For Melbourne RCT we need pre and post-operative GMFM





## Thank you for your kind attention

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