

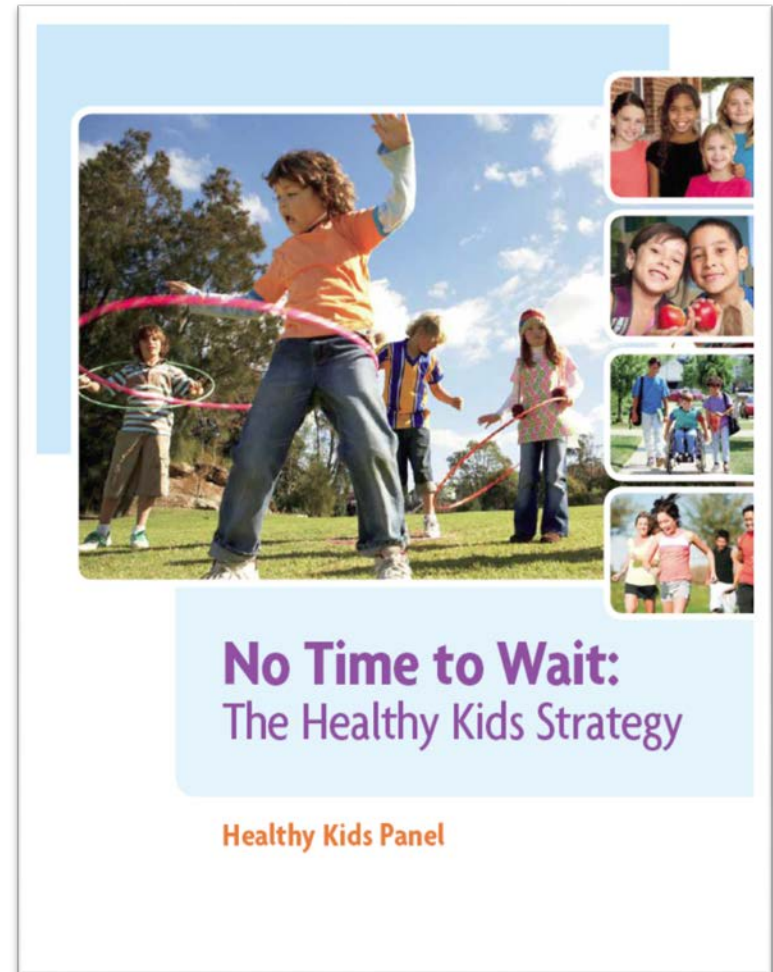
The Use of Electronic Medical Records to Measure Childhood Weight Status in Primary Care

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Rationale

- Recommendation from Healthy Kids Panel
 - C.1 Develop a surveillance system to monitor childhood weights, risk factors and protective factors over time.
- “children’s health care needs and service utilization (from electronic medical records in selected primary care practices)”



Electronic Medical Record Administrative data Linked Database (EMRALD)

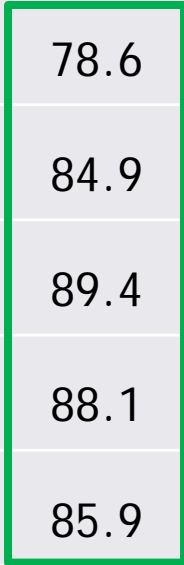
- Network of primary care family physician offices across Ontario, lead by Dr. Karen Tu
- 300 family physicians using Practice Solutions[®] EMR
- >30,000 children 0-19 years old
- Longitudinal data
- Data housed at ICES
- Able to link to ICES databases



EMRALD

Table 1: Proportion of Rostered Patients with Well-child Visits, and Documented Height, Weight, by age group

Age	All Rostered Children in EMRALD	Rostered Children in EMRALD with a visit		# of Visits	Visits with Height and Weight documented	
		#	%		#	%
<1	1545	1292	83.6	4309	3389	78.6
1-4	6898	4700	68.1	17680	15006	84.9
5-9	8103	2131	26.3	3112	2783	89.4
10-14	7784	1190	15.3	1632	1437	88.1
15-19	9013	1059	11.7	1350	1159	85.9
Total	33343	10372	31.1	28083	23774	84.7



Next steps

- Estimating prevalence of weight status (normal, overweight, obese, and severely obese) in children through primary health care
- Developing methods to examine growth trajectories over time in young children
- Examining health care utilization through linking with administrative data
 - Specialist visits
 - Mental health
 - ED visits/hospitalizations

Limitations and Solutions for Working with Big EMR Data

- Measurement validity?
 - Appropriate identification of weight status
- Who goes to primary care?
 - Decrease in proportion of children attending well-child visits by age group
- Potential for TARGet Kids! data to validate?
 - 14 physicians overlap between TARGet Kids! and EMERALD
 - Collects rich data on a sub-population

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