Trends in investigations of abuse or neglect referred by hospital personnel in Ontario

Barbara Fallon,1 Joanne Filippelli,1 Nicolette Joh-Carnella,1 Steven P Miller,2,3 Avram Denburg4

ABSTRACT

Background There is a dearth of literature surrounding mandated reporters to child welfare services in the Canadian context. This paper examines 20 years of reporting patterns from hospitals, which represent 5% of all referrals to child welfare services in Ontario.

Methods The Ontario Incidence Study of Reported Child Abuse and Neglect (OIS) is a representative study that has taken place every 5 years since 1993. The OIS is a multistage cluster sample design, intended to produce an estimate of reported child abuse and neglect in the year the study takes place.

Results There have been significant changes in referral patterns over time. Hospital referrals in 2013 are more likely to involve a concern of neglect, risk of maltreatment or exposure to intimate partner violence. In 1993, children were more likely to be referred from a hospital for a concern of physical abuse. Between 1993 and 1998, there was a significant drop in the number of sexual abuse investigations referred from a hospital. Hospitals have low rates of substantiation across all of the OIS cycles.

Conclusion This is the first study to examine hospital-based referral patterns in Canada. The relatively low percentage of hospital referrals across the cycles of the OIS is consistent with the extant literature. The findings warrant further discussion and research. This study is foundational for future research that can assist in identifying and developing responses across sectors that meet the complex needs of vulnerable families and that ultimately promote children’s safety and well-being.

INTRODUCTION

Child maltreatment is a public health problem.1–3 It is well-established that maltreatment can adversely impact the development and well-being of children.3 Professionals across sectors contribute to the recognition of and response to child abuse and neglect.3 Mandatory reporting facilitates the early detection of child maltreatment, the protection of children and the alignment of services with identified needs.5 There is evidence suggesting that suspected child maltreatment is under-reported.4 6–8 The reporting of suspected child abuse and neglect is enshrined in legislation in all provinces and territories of Canada.9 10 In Ontario, every person is legally obligated to report their suspicion based on reasonable grounds to child welfare authorities.10 11 Officials and professionals who work directly with children have a particular responsibility, and failure to report a suspicion during the course of duties can result in a fine. Health professionals contribute to a small proportion of reports to child protection authorities.11 The WHO has noted that health professionals are among the best positioned groups of professionals to gather evidence with respect to child maltreatment.12

The healthcare system is an important point of contact for potentially maltreated children.13 Within a Canadian child welfare context, referrals from hospital-based personnel (ie, doctor, nurse, social worker) comprise a small proportion of all investigations.3 14 The contribution of healthcare professionals to the recognition and
reporting of child maltreatment is particularly important for younger children who are typically less visible in the community than school-aged children. Canadian and provincial incidence studies show that hospital-based personnel are the most common referral source of maltreatment-related investigations involving infants. Maltreatment adversely affects child well-being more often than physical safety. Studies exploring the detection of child maltreatment in hospital settings have focused on children presenting with injuries; however, a very small proportion of children who are injured as a result of child maltreatment visit or are admitted to hospital. In the 2013 cycle of the Ontario Incidence Study of Reported Child Abuse and Neglect (OIS-2013), physical harm was identified in 5% of cases substantiated for maltreatment; however, medical treatment was required in only 1% of cases.

Barriers are identified in the literature with respect to reporting by healthcare professionals. These include previous negative experiences with child protection services, concerns with the ramifications of reporting on relationships with families, court-related consequences and a lack of knowledge about child maltreatment (eg, Refs 30 and 21). Studies that have focused on barriers to reporting experienced by hospital-based personnel indicate that concerns relating to the accurate assessment and identification of child maltreatment contribute to reporting reluctance. Gilbert and colleagues suggest that in order to understand the reasons for under-reporting, greater understanding is needed around the patterns of recognition and responses of various professionals. McTavish and colleagues’ recent meta-synthesis explored mandated reporters’ experiences and found that less overt forms of maltreatment were challenging to identify and there was reluctance to report suspicions without physical evidence.

Despite the important role of hospital-based professionals in detecting and reporting suspicions of child maltreatment, there is minimal literature that has examined this reporting source. The OIS provides an unmatched opportunity to understand mandatory reporting patterns within a Canadian provincial child welfare context. The OIS is the only source of aggregated provincial data on reported and investigated child maltreatment. The objective of this study is to explore hospital reporting patterns and the child welfare system’s response over the last 20 years in Ontario.

**METHODS**

The OIS is a cyclical provincial study that occurs every 5 years and measures the incidence of reported and investigated child maltreatment. To date, there have been five cycles of the OIS, and results from the sixth cycle (OIS-2018) will be available in 2020. In each cycle, data are collected directly from investigating workers using a standardised data collection instrument, the Maltreatment Assessment Form. Completed at the conclusion of the investigation, this instrument includes clinical information that is routinely gathered by child welfare workers during the course of conducting investigations, including characteristics relating to the caregiver, child, case and short-term service dispositions (eg, transfers to ongoing child welfare services, placement out-of-home). The instrument has a very high completion rate; completion rates for most items in 2013 were over 99%. This instrument requests information specifically about the source of the allegation or referral. The OIS defines a referral from a hospital as originating from any hospital personnel, including a doctor, nurse or social worker.

Each of the five cycles used a multistage sampling design. In the first stage, a representative sample of child welfare sites is selected from a sampling frame that includes all mandated child welfare organisations in Ontario. The second sampling stage involves selecting cases opened in the study sites from October 1 to December 31 in the year the study takes place. A 3-month duration is considered optimal to ensure high participation rates and good compliance with study procedures. Commencing in the 2008 cycle, investigations were tracked that assessed future risk of maltreatment where there was no specific event of maltreatment alleged or suspected in addition to maltreatment investigations. As cases in Ontario are reported at the family level, the final stage of sampling consists of identifying individual children investigated because of maltreatment-related concerns. In each OIS cycle, the sample is weighted to derive estimates of the provincial annual rates of maltreatment investigations in Ontario. See table 1 for the number of agencies, sample sizes and estimates of investigations in each OIS.

**Analytic plan**

Annual provincial incidence rates were calculated by first dividing the weighted estimate by the population of children ≤15 years of age and subsequently multiplying by 1000 to produce a rate per 1000 children. The estimates, investigation rates and proportions of investigations by

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### Table 1: Sites and sample sizes for the Ontario Incidence Study of Reported Child Abuse and Neglect (OIS) from 1993 to 2013

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Site selection (sample/total)</td>
<td>15/51</td>
<td>13/53</td>
<td>16/53</td>
<td>23/53</td>
</tr>
<tr>
<td>Case selection</td>
<td>1898</td>
<td>2193</td>
<td>4175</td>
<td>4415</td>
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<tr>
<td>Investigated children</td>
<td>2447</td>
<td>3053</td>
<td>7172</td>
<td>7471</td>
</tr>
<tr>
<td>Provincial estimate of child maltreatment-related investigations</td>
<td>46683</td>
<td>64658</td>
<td>128108</td>
<td>128748</td>
</tr>
</tbody>
</table>
Results

The ORs uses a literature review methodology in which workers answer a series of questions about their initial child welfare investigations, including information about investigated children and their families. As such, these children and families are not directly involved in the study design, data collection or reporting processes. However, the design and findings are made available to the public for each cycle, a major findings report is made available for each cycle.

Patient and public involvement

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Table 2 presents information on referrals to child welfare from hospital personnel in Ontario from 1993 to 2013. The incidence of referrals from hospital personnel increased significantly from 0.77 (95% CI (0.10 to 1.45)) per 1000 children in 1998 to 1.74 (95% CI (1.15 to 2.31)) per 1000 children in 2003. Between 2003 and 2008, there was a smaller, but still significant increase in hospital referrals. Incidence rates remained relatively stable between 2008 and 2013.

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<table>
<thead>
<tr>
<th>OIS-1993</th>
<th>Rate per 1000</th>
<th>95% CIs</th>
<th>Estimate</th>
<th>%</th>
<th>OIS-1998</th>
<th>Rate per 1000</th>
<th>95% CIs</th>
<th>Estimate</th>
<th>%</th>
<th>OIS-2003</th>
<th>Rate per 1000</th>
<th>95% CIs</th>
<th>Estimate</th>
<th>%</th>
<th>OIS-2008</th>
<th>Rate per 1000</th>
<th>95% CIs</th>
<th>Estimate</th>
<th>%</th>
<th>OIS-2013</th>
<th>Rate per 1000</th>
<th>95% CIs</th>
<th>Estimate</th>
<th>%</th>
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<tbody>
<tr>
<td>Hospital referrals investigations</td>
<td>2463</td>
<td>5</td>
<td>1.12</td>
<td>0.91 to 1.34</td>
<td>1822</td>
<td>3</td>
<td>0.77*</td>
<td>0.10 to 1.45</td>
<td>4159</td>
<td>3</td>
<td>1.74**</td>
<td>1.15 to 2.31</td>
<td>6506</td>
<td>5</td>
<td>2.73</td>
<td>2.13 to 3.73</td>
<td>5798</td>
<td>5</td>
<td>2.47</td>
<td>1.24 to 3.69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total investigations</td>
<td>46860</td>
<td>100</td>
<td>21.41</td>
<td>18.38 to 24.42</td>
<td>64658</td>
<td>100</td>
<td>27.43</td>
<td>24.42 to 31.43</td>
<td>128108</td>
<td>100</td>
<td>53.59</td>
<td>40.04 to 67.14</td>
<td>128748</td>
<td>100</td>
<td>54.05</td>
<td>41.07 to 67.03</td>
<td>125281</td>
<td>100</td>
<td>53.32</td>
<td>29.61 to 77.03</td>
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*p<0.05, **p<0.01.
child welfare in 2008 and 2013 involved an allegation of suspected risk of future maltreatment. The incidence of exposure to IPV significantly increased between 2003 and 2008 (from 0.15 per 1000 children to 0.15 per 1000 children) and between 2008 and 2013 (from 0.15 per 1000 children to 0.4 per 1000 children).

Table 5 describes the service dispositions made at the conclusion of hospital-reported investigations. Substantiated investigations (investigations in which the evidence suggests abuse or neglect occurred) resulting from hospital referrals nearly tripled between 1998 and 2003 (from 0.22 per 1000 children in 1998 to 0.64 per 1000 children in 2003). The substantiation rate significantly decreased from 2003 to 2008 and then significantly increased again in 2013 (from 0.13 per 1000 children to 0.82 per 1000 children). Incidence rates for cases transferred to ongoing services tripled between 1998 and 2003 (from 0.21 per 1000 children in 1998 to 0.63 per 1000 children in 2003). Incidence rates of formal placements have increased over time, but remain relatively low, with the highest rate in 2008 (0.25 per 1000 children).

DISCUSSION

This is the first study to explore hospital-based referral patterns in a Canadian child welfare context. Hospital reports to Ontario child welfare authorities have consistently accounted for a small proportion of overall reports over the last 20 years. Further research is needed to identify and understand factors that influence hospital personnel reporting behaviour. The ability to link administrative hospital and child welfare data to examine trends would provide valuable insights into services children receive. However, the infrastructure does not exist in Ontario to allow for these linkages to be made. It is also important to understand the experiences of hospital personnel in reporting to child protection authorities in Ontario. The majority of studies included in a meta-synthesis by McTavish and colleagues found that mandatory reporters had negative experiences with the reporting process.

Despite the low proportions of hospital-referred investigations, there are notable patterns that have emerged from analyses by age and maltreatment type. Investigated maltreatment rates for hospital referrals between 1993 and 2013 doubled. This increase is consistent with the increase in investigated maltreatment rates in the same period for all reported maltreatment in Ontario, which is believed to be driven by significant changes to policy and legislation over the last two decades. Lowering of thresholds for risk of harm and intervention are among the factors that are believed to have led to an increase in investigated maltreatment rates between 1998 and 2003. Specifically, an increase in investigations of exposure to IPV due to the identification and interpretation of IPV in the province’s screening tool is thought to have contributed to this increase as well as clarity around mandatory reporting.
<table>
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<tbody>
<tr>
<td></td>
<td>Rate per 1000</td>
<td>%</td>
<td>Rate per 1000</td>
<td></td>
<td>Rate per 1000</td>
<td>%</td>
<td>Rate per 1000</td>
<td>%</td>
<td>Rate per 1000</td>
<td>%</td>
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<tr>
<td>&lt;1 year</td>
<td>478</td>
<td>3.23</td>
<td>537</td>
<td>3.78</td>
<td>1433</td>
<td>10.08***</td>
<td>2099</td>
<td>15.88</td>
<td>1508</td>
<td>11.13</td>
</tr>
<tr>
<td>1–3 years</td>
<td>712</td>
<td>1.65</td>
<td>463</td>
<td>1.05</td>
<td>875</td>
<td>1.99*</td>
<td>1258</td>
<td>3.12</td>
<td>1189</td>
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<tr>
<td>4–7 years</td>
<td>495</td>
<td>0.81</td>
<td>267</td>
<td>0.44**</td>
<td>658</td>
<td>1.08**</td>
<td>1012</td>
<td>1.81</td>
<td>1084</td>
<td>1.90</td>
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<tr>
<td>8–11 years</td>
<td>189</td>
<td>0.32</td>
<td>153</td>
<td>0.26</td>
<td>609</td>
<td>1.03**</td>
<td>1066</td>
<td>1.71</td>
<td>844</td>
<td>1.45</td>
</tr>
<tr>
<td>12–15 years</td>
<td>569</td>
<td>0.99</td>
<td>402</td>
<td>0.70</td>
<td>584</td>
<td>1.01</td>
<td>1071</td>
<td>1.60</td>
<td>1173</td>
<td>1.84</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>971</td>
<td>0.44</td>
<td>648</td>
<td>0.29</td>
<td>1054</td>
<td>0.44</td>
<td>694</td>
<td>0.29</td>
<td>745</td>
<td>0.31</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>524</td>
<td>0.24</td>
<td>133</td>
<td>0.06</td>
<td>358</td>
<td>0.15**</td>
<td>322</td>
<td>0.14</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Neglect</td>
<td>664</td>
<td>0.30</td>
<td>885</td>
<td>0.38</td>
<td>1951</td>
<td>0.82</td>
<td>1187</td>
<td>0.50</td>
<td>1030</td>
<td>0.44</td>
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<tr>
<td>Emotional maltreatment</td>
<td>100</td>
<td>0.05</td>
<td>239</td>
<td>0.10</td>
<td>707</td>
<td>0.30**</td>
<td>271</td>
<td>0.11</td>
<td>290</td>
<td>0.12</td>
</tr>
<tr>
<td>Exposure to intimate partner violence</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Risk</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>Total investigations</td>
<td>2443</td>
<td>100</td>
<td>1822</td>
<td>100</td>
<td>4159</td>
<td>100</td>
<td>6506</td>
<td>100</td>
<td>5798</td>
<td>100</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01, ***p<0.001.
†Estimate is too small to report.
The addition of the risk category in 2008 has resulted in a shift in the profiles of hospital-referred investigations. Once the risk category was introduced in the OIS-2008, it became the most commonly identified maltreatment-related concern for the two subsequent cycles for hospital-referral investigations, paralleling the larger provincial trend for all investigations during that same period. Almost 6 of every 10 hospital-referred investigations conducted in 2008 and 2013 involved the assessment of future risk of maltreatment or exposure to IPV. Investigations have shifted from assessing a specific incident of maltreatment towards assessing factors that increase concern of the likelihood of future maltreatment (eg, caregiver mental health). Broader provincial and Canadian investigative trends show that there is an increasing focus on the long-term impact of family challenges on child well-being rather than on immediate child safety.

The finding that infants are the most commonly referred group of children from hospitals is consistent with other studies that suggest that younger children are more likely to be identified as at-risk in healthcare settings. Infants are particularly vulnerable to the deleterious impact of maltreatment on their physical safety and well-being and are more likely to be admitted to hospital for child maltreatment's most dire consequences—physical harm and death. The findings of this paper further underscore the important role that hospital personnel can play with regard to recognizing and responding to maltreatment in the early years, particularly in the absence of school and other early education programmes.

Since 1998, there have been increases in the incidence of hospital referrals, in the rate of hospitalization, and in the proportion of hospitalizations that are transferred to ongoing services. In 2013, the OIS data showed that hospital referrals accounted for 4 of every 10 investigations. Studies have suggested that child welfare systems may respond differentially to allegations of suspected maltreatment based on reporting source (eg, Refs. 33–35). An exploration of the child welfare system's responses to allegations from various referral sources is an important avenue for future research in a Canadian context.

**Limitations**

The OIS is cross-sectional and so does not track long-term case outcomes. Further, there is no consideration of broader worker, organizational, or environmental factors. The data captured in this study are reported to and investigated by child welfare agencies. Therefore, cases that are unreported, screened out, or only reported to police are not included. Last, the data used in this study are primarily based on reported cases. The data captured in this study only include cases that are reported to and investigated by child welfare agencies. Therefore, cases that are not included in these data are unreported, screened out, or only reported to police.

Table 5  Service dispositions for child maltreatment-related investigations from hospital referrals in Ontario (1993–2013)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Rate per 1000</td>
<td>%</td>
<td>Estimate</td>
<td>Rate per 1000</td>
</tr>
<tr>
<td>Substantiation</td>
<td>852</td>
<td>0.39</td>
<td>35</td>
<td>523</td>
<td>0.22</td>
</tr>
<tr>
<td>Transfer to ongoing services</td>
<td>604</td>
<td>0.28</td>
<td>25</td>
<td>497</td>
<td>0.21</td>
</tr>
<tr>
<td>Placement (formal)</td>
<td>193</td>
<td>0.09</td>
<td>8</td>
<td>†</td>
<td>†</td>
</tr>
<tr>
<td>Total investigations</td>
<td>2443</td>
<td></td>
<td></td>
<td>1822</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01.

† Estimate is too small to report.
cannot distinguish whether the referral made was for a prenatal or perinatal concern.

CONCLUSION
Ontario legislation outlines that all people are legally obligated to report suspected child maltreatment. Ensuring that professionals working with children, including hospital personnel, understand and are adequately trained on their responsibilities to report is pertinent for the protection of vulnerable children in this province. Understanding the signs of, not only physical or sexual abuse, but of other forms of maltreatment including exposure to IPV and risk of future maltreatment, is of the utmost importance for these professionals to be able to protect children. The ability to refer families to further supports and services within the community will help professionals address problems related to these specific families. Overall, an understanding of the profile of children typically referred to child welfare services by hospitals and the general provincial trends as well as a knowledge of professionals’ duty to report will better enable hospital personnel to identify and report children at risk of maltreatment. As the first study to look at hospital referrals to child welfare services in Canada, this study provides an important base for future research efforts to assist in identifying and developing responses across sectors to meet the needs of vulnerable families and work to promote children’s safety and well-being.

Contributors BF conceptualised the paper. BF, JF and NJ-C synthesised the literature, conducted data analyses and interpretation, and wrote the manuscript. All authors contributed to data interpretation and had input into the manuscript. All authors read and approved the final manuscript.

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Competing interests None declared.

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Provenance and peer review Not commissioned; externally peer reviewed.

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REFERENCES


33. King CB, Scott KL. Why are suspected cases of child maltreatment referred by educators so often unsubstantiated? *Child Abuse Negl* 2014;38:1–10.
