Client Outcomes in Child Welfare: Phase II

Final Report – April 5, 2002

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Table of Contents

Executive Summary

Little is known about the children and families who receive child welfare services across Canada. Designed to protect children from further abuse and neglect, Canadian child welfare authorities do not currently report rates of recidivism. Most jurisdictions do not track the proportion of children who are reported to child welfare services and are subsequently admitted to care. Although front-line child welfare workers invest significant amounts of time documenting their activities, this rich source of data is not easily accessible to managers and policy makers. A more systematic approach to tracking child welfare service outcomes is required in a context of growing public concern about the safety and well-being of children, government requirements for service accountability, and increasing challenges for agencies to develop better targeted and more effective services

The Client Outcomes in Child Welfare (COCW) project was initiated in 1996 by the Provincial and Territorial Directors of Child Welfare in conjunction with Human Resources Development Canada to support the development of a coordinated approach to assess the effectiveness of child welfare services and policies across Canada. The national consultation and design phase of the project concluded with the endorsement of a common outcomes framework based on a Child Welfare Outcome Indicator Matrix of 10 outcome indicators designed to monitor the extent to which child welfare services lead to improved child safety, well-being, permanence and family and community support.

The second phase of COCW project (2000-2002) was designed to further develop and test operational definitions for the selected outcome indicators. The primary objective of the COCW Phase II project was to test the capacity of provincial and territorial Child Welfare Information Systems (CWIS) to track and export key service data that could be used to calculate outcome indicators. Phase II was particularly interested in CWISs' capacities to move beyond year-end case counts to report case-flow statistics that provide more meaningful bases for tracking service outcomes.

All participating jurisdictions demonstrated the capacity to generate case-flow data tracking cases through their CWISs. Three indicators – 12 month service recurrence, placement rate and moves in care – proved to be the most broadly available indicators, with some jurisdictions having access to two others – time to reunification or permanent wardship and placement matching. Most CWISs do not currently track severe injuries/deaths, grade level, child emotional/behavioural functioning, parenting capacity and family address changes.

Four possible data collection models were reviewed. A centralized national data collection model would likely yield the highest quality data and great analytical potential. However, this option was not considered to be feasible given the costs of a centralized system and the lack of a Federal mandate with respect to the delivery of child welfare services. The project team recommends instead that Provinces and Territories develop a nationally coordinated data collection system with case-level data maintained in provincial and territorial databases, and aggregate statistics submitted nationally on an annual basis. This option would require a commitment from

participating jurisdictions to a common set of data fields and codes. This commitment could be implemented on an incremental basis. Some data fields could be redeveloped immediately at little cost; others would be added as jurisdictions update their CWIS.

The coordinated data collection option would not require a major national investment of resources since most of the data cleaning and manipulation would be done by the provinces/territories. However, some financial support for national coordination, reporting, and analysis will be required. The collection and dissemination of these data could be assumed by the Federal Government through an organization like the Provincial Working Group on Child and Family Services Information. Alternatively, an independent research organization, such as the Centre of Excellence for Child Welfare could be used to house, analyse and disseminate these statistics.

A number of recommendations concerning the calculation and presentation of outcome indicators are made, including maximizing comparability with equivalent national and international statistics, articulating specific objectives associated with each outcome, and calculating indicators on a sub-population specific basis (e.g. separate indicators for children in long-term care). It is also recommended that reports of provincial and territorial statistics include a number of contextual indicators, such as population age distributions and poverty rates.

The report provides a detailed list of a recommended common set of dedicated data fields that would provide a basis for meaningful comparative analyses.

The importance of systematically tracking outcomes is well recognized, however, competing priorities, limited resources, and the multi-layered structure of CWISs complicate the task of redesigning information systems. In addition, consideration needs to be given to concerns that naturally emerge from reporting outcome data: concerns from administrators that inappropriate comparisons will be made between jurisdictions, concerns from front-line staff that their performance will be evaluated using crude indicators that are beyond their capacities to control. These concerns can be addressed in part by including administrators and front-line staff in preliminary analyses of the selected indicators and clearly identifying the limited meanings of the indicators.

The project team strongly recommends that the Provincial and Territorial Directors propose to their Deputies the establishment of a permanent COCW Implementation Committee to coordinate the implementation of the COCW initiative. The Committee should include Directors and their representatives as well as representatives from First Nations/Aboriginal service providers.

The COCW initiative has been on the Provincial/Territorial Directors of Child Welfare agenda for over seven years. Progress has been incremental, moving from developing a common framework to pilot testing indicators. The COCW project is now at a point where further progress can only be made through making coordinated changes to CWISs. Client outcome tracking systems are required to support outcome based service planning and policy-making. Having access to a broad range of outcome data provides a basis for evaluating the performance of service delivery systems and setting targets for initiatives designed to improve services. A well-coordinated national approach will allow policy makers to learn from the experiences of other jurisdictions using comparable information and standards.

Background

The following report summarizes the methodology, major findings and recommendations from the *Client Outcomes in Child Welfare (COCW) Phase II* project. The report includes five major sections: a summary of the project's background, a description of the project methodology, a presentation of the major findings in terms of the available aggregated outcome indicators, a discussion of the key data collection issues, and recommendations for future development of child welfare outcome tracking systems.

Client Outcomes in Child Welfare (COCW) Phase I

Phase I of the Client Outcomes in Child Welfare project was initiated by the Provincial and Territorial Directors of Child Welfare in conjunction with Human Resources Development Canada to support the development of a coordinated approach to assess the effectiveness of child welfare services and policies across Canada. Phase I of the COCW was conducted by a consortium of university researchers in Toronto, Kingston and Montreal over a two-year period from 1996 to 1998. The project was designed to: (1) develop a comprehensive overview of the existing state of knowledge about outcomes measurement for child welfare in Canada and internationally; and (2) initiate a consensus-building process among key stakeholders for a coordinated strategy in tracking child welfare outcome information across Canada. Following extensive consultations and reviews of different outcome measurement systems, the preliminary findings from the COCW project were presented in March of 1998 at the First Canadian Roundtable on Child Welfare Outcomes which brought together policy makers, information specialists, senior service providers and researchers from across Canada. The Roundtable strongly endorsed the need for a better coordinated approach for tracking outcomes in child welfare based on a common outcomes framework. On the basis of the Roundtable discussions, a matrix of 10 key outcome indicators – designed to monitor the extent to which child welfare services lead to improved child safety, well-being, permanence and family and community support – was further refined to yield the Child Welfare Outcome Indicator Matrix.[1]

Child Welfare Outcome Indicator Matrix

The Child Welfare Outcome Indicator Matrix includes four key domains: child safety, child well-being, permanence, and family and community support. The indicators were selected on the basis of their potential availability and their salience. Taken individually, most of these indicators are only proxy measures for child and family well-being. However, this set of ten indicators provide a broad perspective on the care and condition of children receiving child welfare services (The following section is adapted from the original Outcome Indicator Matrix document[2]).

1 Trocmé, N., Nutter, B., MacLaurin, B., Fallon, B. (1999), *Child Welfare Outcome Indicator Matrix* Toronto, Bell Canada Child Welfare Research Unit, Faculty of Social Work, University of Toronto.

2 See note 1.

Table 1: Child Welfare Outcome Indicator Matrix

Domain	Indicator	
1. Safety	1.1	**Recurrence** of maltreatment
	1.2	Serious **injuries**/deaths
2. Well-being	2.1	**Grade** level/Graduation
	2.2	**Child behaviour**
3. Permanence	3.1	**Placement** rate
	3.2	**Moves** in care
	3.3	**Time** to achieving **permanent** placement
4. Family and Community Support	4.1	**Family moves**
	4.2	**Parenting capacity**
	4.3	Ethno-cultural placement **matching**

Recurrence of Maltreatment

Child protection is the core function and primary focus of the child welfare system with the ultimate goal of preventing future maltreatment. Recurrence of maltreatment includes all confirmed cases of child abuse or neglect known to a child protection system in which a subsequent confirmed incident of maltreatment occurs and becomes known to child protective services. Reported rates of recurrence range from under 10% to over 60%. The best study to date reported 24% of families experienced at least one repeat incident of confirmed maltreatment within 12 months of the first incident, 43% repeated within five years[3]. Recurrence is measured over a set interval. For example the 12 month recurrence rate is the proportion of children identified by child welfare services as maltreated who are maltreated again within 12 months.

Serious Injuries and Deaths

Protection from serious harm is a key priority for all child protection services and such cases require priority intervention and tacking. While the majority of investigated maltreatment cases do not involve serious injuries or fatalities, every effort must be made to prevent such tragic outcomes. The Canadian Incidence Study of Reported Child Abuse and Neglect found that 4% of substantiated investigations documented physical harm severe enough to require medical attention[4]. While injuries associated with suspected maltreatment and all serious injuries (intentional and non-intentional) to children in child welfare placements (e.g., foster care, group care, and residential care) are documented in child welfare case notes, most Child Welfare Information Systems (CWISs) do not track injury information.

3 DePanfilis, D., & Zuravin, S. J. (1999). Epidemiology of Child Maltreatment Recurrences. *Social Services Review*, 73(2), 218–239.

4 Trocmé, MacLaurin, Fallon, et. al. (2001) *The Canadian Incidence Study of Reported Child Abuse and Neglect (CIS): Final Report*, Ottawa, Ontario: Minister of Public Works and Government Services Canada.

Grade Level/Graduation

Maltreatment is a significant risk factor for developmental, cognitive, and academic delays. Enhancing child well-being is a paramount objective of the child welfare system. Improvements in cognitive functioning is a key outcome indicator. This is not the exclusive domain of the child welfare system, but it represents a service priority that should be well documented. Research consistently shows that children receiving child welfare services are behind their peers in all aspects of cognitive development and school performance. A community survey in upper New York State found that maltreated children were 2.5 times more likely to repeat a grade than were a matched group of non-maltreated children[5]. Performance can be measured as age to grade ratio, achievement on standardized tests (e.g. Math and English), placement in special education classes, school attendance, and assessed risk of failure. While test scores may more accurately measure specific skills, age to grade ratio is the most feasible indicator for child welfare services to collect, especially for children receiving home based services. For out of school older youth, graduation rates are a simple and appropriate measure. Outcome monitoring for pre-school children depends on the extent to which child welfare authorities use developmental assessments.

Child Behaviour

Maltreated children are higher risk for behavioural problems at home and in school, delinquency, and criminal activity. Preliminary findings from the Looking After Children in Canada Project were that 39% of maltreated youth reported having difficulties with anger, and 32% reported often getting into trouble for defiance[6]. Similarly, a recent American study using the Teacher report from the Child Behaviour Checklist found that over 40% of children in the child welfare system were rated as having problem behaviours compared to 20% in a matched sample[7]. Standardized measures of child behaviour are not generally used in child welfare settings. However, some jurisdictions have started to use instruments that include some behavioural information, either in risk assessment tools or in assessment records for children in long-term care.

Placement Rate

Placement of children in out-of-home care is a consistently documented indicator for child welfare services. Placement in care is necessary for children who cannot be adequately protected at home or whose needs cannot be met at home. The Canadian Incidence Study of Reported Child Abuse and Neglect found that 8% investigations lead to a placement in care within the first two-months of the investigations[8]. An Illinois study of over 10,000 child welfare investigations found that placement rates increase as a function of the time a case is kept open. At one month

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5 Eckenrode, J., Laird, M., & Doris, J. (1993). The Effect of Neglect on Academic Achievement and Disciplinary Problem: A Developmental Perspective. *Developmental Psychology*, 29, 53–62.

6 Kufeldt, K., Baker, J., Bennett, L., & Tite, R. (1998). Looking After Children in Canada: Interim Report. Fredericton, New Brunswick: University of New Brunswick.

7 Howing, P. T., Wodarski, J. S., Kurtz, P. D., & Gaudin, J. M. (1993). Maltreatment of the school-age child: Developmental outcomes and system issues. New York, NY: Haworth Press.

8 see footnote 4.

after referral 7% of children had been placed in care compared to 21% within one year of the initial referral[9]. Interpretation of placement statistics is complex. An increase in placement rates is not necessarily a negative outcome; it could mean that child welfare authorities are doing a better job at identifying and protecting children who would have been severely harmed if left at home. This is further complicated by the fact that placement decisions are affected by the availability of placement resources. In some jurisdictions official placement rates may significantly under represent children who are placed in non-traditional child welfare settings, such as customary care or informal community placements. Runaway youth should also be carefully tracked in placement statistics.

Moves in Care

Social stability is essential for children to develop a sense of belonging and identity as they cope with separation from their families. Some placement changes can be beneficial, but multiple unplanned moves can have seriously negative short and long-term consequences for children. Moves in care tracks admissions, re-admissions, and significant placement changes. A four year longitudinal study of 717 children who entered foster care in Saskatchewan found that 71% of children experienced only one out-of-home placement. The average number of moves for children who experienced more than one out-of-home placement was 2.3, and only 10% of these had more than four[10]. The simplest way to measure moves in care is to count the number of moves experienced by children when they are discharged from care. This method measures moves during a specific spell in care. The moves in care indicator should only track significant placement changes, not respite placements or home visits.

Time to Achieving Permanent Placement

Most children brought into care return home after relatively short periods of time. Rosenbluth (1995) found that children entering care in Saskatchewan spent an average of one year in foster care, although the majority of children returned home in less than six months. Placement drift is a concern for children who remain in care. The challenge in measuring time to achieving permanence is deciding which placements can appropriately be categorized as permanent. The simplest definition of permanent placement is one that is intended to be permanent, such as returning a child home (reunification), placement in an adoptive home, or a permanent foster home placement. Using time to achieving permanence as an outcome measure is complicated by the fact that hasty placements may be more likely to break down. Reunification breakdown rates have been as high as 30%. Courtney (1995) found that foster children reunified within three months were more likely to be taken into care again than children reunified between three and six months.

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9 Schuerman, J. R., Rzepnicki, T. L., & Littell, J. H. (1994). *Putting Families First: An Experiment in Family Preservation*. New York, NY: Aldine De Gruyter

10 Rosenbluth, D. (1995). Moving In and Out of Foster Care. In J. H. a. B. Galaway (Ed.), *Child Welfare in Canada: Research and Policy Implications* (pp. 233–244). Toronto: Thompson Educational Publishing, Inc.

Family Moves

Frequent moves lead to loss of peer and social support networks for children and parents. For children, frequent moves and multiple school changes may prevent the formation of constructive social support networks. Housing instability is caused by many factors including lack of affordable good quality housing, employment changes, lifestyle, and other family crises. While child welfare services are not responsible for providing housing, many child welfare social workers advocate for better affordable housing for their clients and also work with families to adopt lifestyles that will increase their likelihood of enjoying housing stability. The Canadian Incidence Study of Reported Child Abuse and Neglect found that more than 23% of investigated families had experienced at least one address in change in the previous six months (Trocmé, MacLaurin , Fallon, et al. 2001). A recent survey conducted a the Children's Aid Society of Toronto found that 21% of respondents noted that housing was a factor in the decision to place children in out of home care (Chau, Fitzpatrick, Hulchanski, Leslie & Schatia, 2001).

Parenting Capacity

Parenting capacity is a major concern in many cases of child maltreatment. Most home based child welfare services target parents' ability to meet the emotional, cognitive, physical, and behavioural needs of their children. Improved parenting is a good outcome for children. Better parenting translates into better long-term child outcomes. Parenting is targeted by many child welfare interventions and tools have been developed to assess parenting and family functioning. However, standardized parenting measures are not commonly used to assess families or track outcomes in child welfare. Most risk assessment tools also include a number of potentially useful parenting measures, although their interpretation as outcome measures has yet to be tested.

Ethno-Cultural Placement Matching

When children and youth must be removed from their homes, efforts should be made to place them within their geographic community with extended family, a family with similar ethno-cultural background, or in foster care that is very inclusive of their family and friends. There is well-founded concern that many minority children (e.g. Aboriginal, Black, Muslim, etc.) are not placed in matched foster homes or homes easily accessible to their family and friends. For example, although 64% of children in care in Saskatchewan in March 1990 were of Aboriginal ancestry, and these children spent on average more time in foster care than did non-Native children, less than 10% of these Native children were in matched foster homes[11]. Placement matching data must be interpreted with caution in individual cases because ethno-cultural matching is only one of the factors to be considered in finding the most appropriate placement for a child. Nonetheless, ethno-cultural matching provides a strong indicator of community engagement in recruiting foster homes and finding the most appropriate out-of-home placements for children in their communities.

11 see footnote 10.

Interpretation Issues

Many of the indicators selected for the Child Welfare Outcome Indicator Matrix are proxy measures that will need to be interpreted with caution. A narrow focus on any one indicator could have unintended effects on delivery of services. Reducing placements, for example, without ensuring safety and supporting child well-being, could simply result is a loss of services leaving more children at risk of further maltreatment. Proxy indicators that reflect system events can nevertheless provide a meaningful measurement framework if the selection of indicators covers a broad set of domains, as proposed in the *Child Welfare Outcome Indicator Matrix*.

COCW Phase II

The COCW Phase II project was initiated by the Provincial and Territorial Directors of Child Welfare and HRDC to further develop and test operational definitions for the Child Welfare Outcome Indicator Matrix. The contract for Phase II was awarded to a team of researchers affiliated with the Bell Canada Child Welfare Research Unit at the Centre of Excellence for Child Welfare, Faculty of Social Work, University of Toronto. The team includes Nico Trocmé (Principal Investigator), Barbara Fallon (Project Manager), Stanley Loo (Database Manager) and Butch Nutter (Consultant).

The primary objective of the COCW Phase II project was to test the capacity of provincial and territorial Child Welfare Information Systems (CWIS) to track and export key service data that could be used to calculate outcome indicators. Phase II was particularly interested in CWISs' capacities to move beyond year-end case counts to report case-flow statistics that provide more meaningful bases for tracking service outcomes. Our review of CWIS was conducted in a number of ways:

1) further develop the definitions of the ten Outcome Matrix indicators in ways that would support development of a Canadian child welfare client outcomes data base; (see COCW Phase II Report Number 1: Outcome Matrix Preliminary Operational Definitions, February, 2001);

2) test the utility of these definitions as a basis for gathering client outcome data from each participating province and territory;

3) review the structure and capacity of CWIS, including a review of the computer hardware and database management systems used, and interviews with technical staff responsible for the CWISs (see COCW Phase II Report Number 2: Child Protection Information Systems in Canadian Provinces/Territories: Characteristics and Capacity, April, 2001);

4) collect data, using a customized data retrieval protocol (see sample attached, Appendix A), to test the capacity of each participating province's or territory's CWIS to produce data on each of these indicators;

5) assess the technical quality of the data received from each participating province and territory through data cleaning, including consultation with CWIS technical staff, to ensure data meeting project specifications and constancy between data files; (see COCW Phase II Report Number 3: Data Collection, November, 2001);

6) map provincial and territorial codes onto project codes, including verification of interpretations with Provincial/Territorial analysts;

7) merge all provincial/territorial datasets to form a unified set;

8) compute aggregate statistics for the key indicators;

9) report the results of this research; and

10) develop and report recommendations to promote the development of Canadian child welfare client outcomes data collection and reporting.

Caution. It is important to emphasize that COCW Phase II was not designed to test the reliability or validity of data submitted from any of the participating provinces or territories. It would be inappropriate to make client outcomes comparisons between the participating provinces and territories on the basis of the information contained in this or earlier reports. This project has focused on the capacities of CWISs to submit data that can be combined to form a unified dataset, a critical technical prerequisite for the development of a national approach to child protection outcomes measurement. Our tests of that data have been restricted to tests of technical quality of the data, not their meanings. In addition, there is little reason to believe that the sample data we have received are adequately representative of the participating provinces and territories. Therefore, this is a report about information systems and the availability of numbers, not the child welfare outcomes performance of the participating provinces and territories.

Provincial/Territorial Advisors

The Project Team worked in close consultation with a national Steering Committee. Pages 54 to 56 list steering committee group members and technical advisors who were formally assigned to the project but do not include everyone who assisted on this project.

Methodology

The COCW Phase II project was conducted in four stages. The first stage was to further develop the definition of the ten Outcome Matrix indicators and propose a data collection plan to be reviewed by the Steering Committee. During the second stage of the project we reviewed existing child welfare information systems in order to assess system capacities and refine data requests. Data analysis was conducted during the third stage to identify interpretation and data quality issues. Recommendations for future data collection were developed in consultation with the Steering Committee. The results of these four stages form the basis for this final report. Detailed descriptions of each stage were presented in the following reports:

Nutter, Trocmé, Fallon & Loo, (February, 2001). *COCW Phase II Report Number 1: Outcome Matrix Operational Definitions*.

Loo, Trocmé, Nutter & Fallon (April, 2001). *COCW Phase II Report Number 2: Child Protection Information Systems in Canadian Provinces/Territories: Characteristics and Capacity*.

Trocmé, Loo, Fallon & Nutter (November, 2001). *COCW Phase II Report Number 3: Data Collection*.

Trocmé, Loo, Fallon & Nutter (January, 2002). *COCW Phase II Report Number 4: Findings and Framework for Recommendations*.

Stage 1: Data Collection Plan and Operational Definitions

A draft data collection plan including operational definitions of all ten indicators was completed in February 2001 and distributed for review to representatives from participating provinces and territories. Feedback was very constructive in developing the jurisdiction-specific data requests. The cohort selection process and definitions of key variables are described below.

Cohort Selection

Unit of Observation

Most Child Welfare Information Systems (CWISs) track information by both family and child, with some systems using family as the unit of observation for investigations and home-based services, and child as the unit of observation for in-care services. However, the child is the pre-eminent focus across all systems. While all service events are directly linked to the child, they are not always directly linked to the family at the same time. We selected the child as our basic unit of observation because (a) all of the outcome matrix indicators can be measured at the child level, although some outcomes refer to the child's family (family moves and parenting capacity) and (b) the safety and well-being of children is the focus of child welfare services.

Time Periods for Selecting and Tracking Cohorts

To test date-based data retrieval capabilities and to restrict the volume of data, specific time periods were set for selecting cohorts of cases. In this study two cohorts were selected, each including one month of cases closed. Cohort A included cases closed in January 2000 tracked forward for 12 months[12]. Cohort A was a follow-up cohort used to study recurrence of maltreatment after case closure. Cohort B included cases closed in January 2001 whose records were then tracked back to the most recent preceding case opening: their most recent spell of service[13]. The possibility existed that Cohort B could provide data on all ten of the Outcome Matrix indicators. Seven provinces[14] and one territory provided usable data: British Columbia (Cohort A); Alberta (Cohort A and Cohort B); Saskatchewan (Cohort A and Cohort B); Manitoba (Cohort A and Cohort B); New Brunswick (Cohort A and Cohort B); Nova Scotia (Cohort A and Cohort B); Newfoundland (Cohort A and Cohort B) and the Yukon (Cohort A and Cohort B).

Case Identification

Case identification information contains the child and family case opening and closing information needed to define spells of service, as well as the data needed to link service events to a case and to identify cases that belong to the same family. This information was treated as *fixed data*. Fixed data describe each case in each cohort on a set of variables that remain the same throughout the service spell. Case identifiers (family ID and child ID) are for linking service event information as well as cases to each other. Because these identifiers could potentially be linked back to names, provinces and territories were required to re-represent all family IDs and child IDs before sending their data. Child DOB (for further protection of privacy, only month and year of birth data were gathered.); child's sex; child's ethno-cultural background (if available); service spell opening date; service spell closing date; reason case was opened (maltreatment or risk of maltreatment); types of maltreatment (physical abuse, sexual abuse, emotional abuse, physical neglect, or developmental neglect); and type of substantiation (*maltreatment substantiated or maltreatment not substantiated* by investigation and *risk substantiated or risk not substantiated* by investigation). For each variable, we negotiated with each participating province and territory how we should recode their submitted data to best fit into our categories. Although these types of maltreatment and types of substantiation are fixed data for the spell of service opening they describe, they can also describe events that occur later during a spell of service or between spells of service.

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12 The follow-up period for Newfoundland and Labrador was shorter, ending officially in November 2000, due to database conversion work in progress.

13 Similarly, due to database conversion work in progress, the Cohort B Index Month for Newfoundland and Labrador was November 2000, not January 2001.

14 Because Ontario had conducted an earlier pilot outcome data collection project, the province deferred participation in data collection for the COCW Phase II. See Trocmé, N, Nutter, B., & Loo, S (2000). *Client Outcomes in Child Protection in Ontario Data Collection Project: Final Report*. Ministry of Community and Social Services.

Legal Status

Because legal status, sometimes called legal authority, can be part of the definitions of more than one indicator we have addressed it separately. Legal status describes the legal auspices under which services are provided. These include legislatively mandated services such as investigations and emergency apprehensions as well as voluntary agreements and court orders. We defined nine legal status categories relevant to the ten matrix indicators: (a) Apprehension; (b) Investigation; (c) voluntary family service agreement; (d) court ordered family service agreement or supervision order (in both of these parental rights over the child are intact); (e) parent(s) temporarily relinquished rights and care of child; (f) parent(s) permanently relinquished parental rights and care of child; (g) court temporarily removed parental rights; (h) court permanently terminated parental rights; and (i) child is legally an adult (child has reached age of majority). These legal statuses have different labels and definitions in different jurisdictions. As with other variables, how best to recode submitted legal status data into our categories of legal status was negotiated with each province and territory. Family ID, child ID, date legal status began along with the legal status coming into force at the legal status date was requested for each legal status experienced by each child during the spell of service that defined Cohorts A and B.

Definition of Outcome Indicators

Safety

Safety indicators were recurrence of maltreatment and serious injuries/deaths.

Recurrence of Maltreatment

Recurrence of maltreatment data were requested from cohort A to examine recurrence of maltreatment over the 12 months following case closure. Recurrence of maltreatment was defined by following variables: (a) Reopening date; (b) Reopening closing date; (c) Reason for reopening (maltreatment or risk of maltreatment); types of maltreatment (d) Physical abuse (yes or no); (e) Sexual abuse (yes or no); (f) Emotional abuse (yes or no); (g) Physical neglect (yes of no); (h) Developmental neglect (yes or no); and (i) Level of substantiation of maltreatment or risk (maltreatment substantiated or maltreatment not substantiated by investigation and risk substantiated or risk not substantiated by investigation).

Two things should be noted about this definition of recurrence of maltreatment. One is that case opening was deemed to have occurred at the beginning of investigation because investigation is perceived as a child protection service and child protection investigations are performed under legal auspices, a legal status. Two, recurrence of maltreatment is defined by the same variables that were listed earlier under case identification to describe the beginning of a service spell.

Serious Injuries/Deaths

Serious injuries were measured by tracking the proportion of children receiving child welfare services who had sustained a serious injury, whether or not that injury was caused by an incident of maltreatment. Information systems should in principle document all serious injuries to children receiving child protection services.

There were three components to the operational definition of serious injury: severity, type, and intentionality. We proposed that severity of injury be measured on a five point scale where: (a) *no injuries* are detected; (b) *mild* are visible injuries that require no medical intervention other than cleaning, a Band-Aid, etc.; (c) *serious* are injuries that require outpatient medical attention such as stitches, specialized bandaging, setting and casting, prescription medication, etc.; (d) *hospitalization* are injuries that require hospitalization; and (e) *death* are injuries that result in death. We also suggested that type of injury include (a) bruises, cuts, and scrapes; (b) burns and/or scalds; (c) broken bones; (d) head trauma; and (e) health conditions such as malnutrition, poisoning, communicable diseases that could have been prevented by normal immunizations, and allergies that are exacerbated by caretaker behaviours. We proposed four levels of intentionality: (a) *abuse* – intentionally inflicted injury including administration of noxious substances and/or unsafe or inadequate food; (b) *neglect* – failure to protect from commonly understood hazards including failure to provide adequate diet or appropriate immunizations; (c) *accidental* – injury occurring in the absence of intent to harm and when normally expected precautions for safety and health have been taken; and (d) *self-inflicted* – injury occurring because the child has intentionally harmed her/himself.

These definitions could not be tested because none of the participating jurisdictions maintain systematic records of serious injury in their CWIS (although all keep text based records in the files).

Well-being

Grade Level/Graduation

We proposed to define grade level/graduation by the following variables: (a) The grade level the child was attending at opening; (b) the grade level the child was attending each September during the spell of service; (c) the grade level the child was attending at closing; and (d) high school graduation. It is recognized that different jurisdictions will have different definitions of grade level.

Child Behaviour

Systematic child behaviour data should become available as jurisdictions begin to use the Looking After Children, Assessment and Action Records (A&AR) or portions of the National Longitudinal Survey of Children and Youth (NLSCY) or similar instruments for assessing child behaviour. Risk assessment tools might also be used, although their validity as outcome measures would need to be tested[15]. It is not necessary for each participating jurisdiction to use the same measures of child

15 A recent Illinois study of the potential use of risk assessment tool for outcome measurement found that scores were artificially inflated/deflated to accommodate service decisions (Lyle, C. & Graham, E., 2000) Looks can be deceiving: Using a risk assessment instrument to evaluate the outcomes of child protection services. *Children & Youth Services Review*. Vol 22(11-12), pp. 935–949

behaviour if these measures are administered near case opening and again near case closing. Repeated administrations would allow calculation of difference scores that could be converted to standard scores for purposes of comparison. Unfortunately this process could not be tested because the participating jurisdictions did not include child behaviour measures in their CWISs.

Permanence

Placement rate

Placement rate is measured at case closing (Cohort B) by calculating the proportion of children admitted to care among all children who received child protection services. This proportion can be calculated by dividing the number of children in Cohort B taken into care by the total number of children in Cohort B.

Placement is defined by two essential components: (a) The child resides outside the nuclear family home and (b) persons other than the child's parents are legally empowered to make decisions and give consents on behalf of the child. For each child in Cohort B we requested the following: Placement date; placement type which included foster care, group home, residential treatment, adoption probation, extended family care, YOA placements, and independent living arrangements for minor children; date of discharge from care; and discharge from care type which included extended family care, absent without leave/permission, family reunification, emancipation at age of majority, and death of child. How to fit the codes of each participating province and territory into these categories was negotiated with each of these jurisdictions.

Moves in Care (Placement Changes)

Placement changes were measured for each child at the point of case closure (Cohort B). Placement changes measure the number of admissions, discharges, re-admissions, and other significant placement changes. In general, a significant placement change involves the child being cared for by a different set of carers than cared for the child just prior to the move. Short-term changes in living arrangements that do not involve changing the child's home base or primary caregivers are not included as placement changes. Examples of these include respite care, home visits, acute hospital admissions, and changes in legal status such as adoption finalization, and extended care and maintenance for youth 18 years and older.

Placement changes that count as moves in care are moves within and between the following types of placements: (a) foster homes; (b) group homes; (c) residential treatment; (d) adoption probation; (e) extended family care; (f) YOA admissions; (g) independent living arrangements for minor children; and (h) AWOL (absent without leave).

The reasons for placement changes contain important information about agency practice in relation to children in care. We proposed six categories of reasons for placement changes: (a) administrative; (b) child died; (c) insufficient progress; (d) placement breakdown; (e) placement goals achieved; and (f) moved to permanent placement.

The moves in care variables requested were date of placement change, type of placement, and reason for placement. As with other variables, we negotiated with each participating province or territory how best to recode the data they submitted into our categories on these variables.

Time to Achieving Permanence

Time to achieving permanence should be measured at the point of case closure (Cohort B) by counting cumulative days in care up to a child's return home, adoption, emancipation, or other permanent placement. The indicator should be based on the number of days in temporary care for all children discharged home, adopted, emancipated, or placed in some other permanent placement during a spell of service. The data required to calculate time to achieving permanence had been identified earlier in relation to placement rate and moves in care[16].

Family and Community Support

Family Moves

Family residential stability could be measured at case closing by counting the number of times a family's address had changed during that spell of service and dividing each count by the length of service spell. Annual family move rate could be calculated for each family by dividing each family's number of moves by their service spell length in days and multiplying the resulting quotient by 365. Patterns of moves both in terms of frequency and distance could be calculated from the date of move plus the postal code moved to.

Virtually all child protection agencies keep current address files on the families they serve. Unfortunately, in many information systems, after families move their former address is replaced by their present address and no record is kept of the dates or numbers of former addresses. This practice of replacing old addresses with new addresses reflects older information system requirements when the cost of electronic data storage was relatively high.

Parenting Capacity

As with child behaviour a number of promising measures of parenting capacity are in development but have not been included in CWISs. As provinces or territories included these in their CWISs, parenting capacity change scores could be used for comparisons within jurisdictions over time. A possible specific indicator for such comparisons could be derived by subtracting opening from closing parenting capacity scores and converting the differences to a three point scale: positive change, no change, and negative change or change scores to standard scores if distributions were approximately normal.

Ethno-cultural Placement Matching

The most reliable ethno-cultural data available in CWISs is First Nation status[17]. Few jurisdictions, however, include Aboriginal status of foster parents in their CWISs.

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16 In practice we found that return home status and emancipation status were harder to analyze than anticipated, in hindsight a separate case closing status variable should have been included.

17 It is unclear how well other Aboriginal (Metis and Innuit) children and families are tracked.

Stage 2: Review of Child Welfare Information Systems (CWIS)

The second stage of the COCW Phase II project involved reviewing the capacity of provincial and territorial CWISs. A standard information request guided interviews with CWIS personnel in each of the participating provinces and territories. All provinces and territories, except Quebec and Nunavut[18], provided user manuals, paper forms, and a variety of technical documents. These printed materials provided valuable supplement to the information gathered by phone. The interviews and document reviews focused on two topics:

- Characteristics of the information system including hardware, software, history, and future plans.
- Capacity of the information system to output the data required for the ten outcome matrix indicators.

The detailed results of these inquiries were presented in *COCW Phase II Report Number 2: Child Protection Information Systems in Canadian Provinces/Territories: Characteristics and Capacity* (April, 2001), and are summarized in the Findings section of the present report.

Stage 3: Data Collection and Analysis

Data Collection

At the April 2001 meeting of the Steering Committee, all provinces and territories other than Ontario[19] and Québec confirmed that they were able to participate in data collection. Project staff worked with provinces and territories to develop data collection protocols specific to their jurisdiction. These protocols were based on the operational definitions for case/cohort selection and for each of the outcome matrix indicators. Detailed jurisdiction-specific data requests were sent to each participating province and territory for feedback and negotiation. (See attached sample data retrieval protocol for details, Appendix A).

To protect child and family privacy, all family and child IDs and dates of birth of the children were re-represented by the submitting jurisdiction, so it would be impossible for anybody other than the database worker who prepared the original datasets to identify individuals or families. The following additional data confidentiality safeguards were implemented.

- Provinces/territories were required to zip their datasets and protect the zipped file with a password. They sent the password to the project database manager in a separate correspondence.

18 Nunavut is the only province/territory without a computerized child protection information system at that time.

19 Because Ontario had conducted an earlier pilot outcome data collection project, the province deferred participation in data collection for the COCW Phase II. See Trocmé, N, Nutter, B., & Loo, S (2000). *Client Outcomes in Child Protection in Ontario Data Collection Project: Final Report*. Ministry of Community and Social Services.

- The project database was protected with four separate passwords: at the CMOS level, server level, directory level, and database level.
- The project database manager was the sole steward of the database. No other people had access to the data.
- Upon completion of the project, the project database data and all original datasets from the provinces/territories will be transferred to a CD and submitted to HRDC. A copy of the data will also be kept in a locked cabinet in a locked office at the University of Toronto for safe storage according to university policy and guidelines. All data on the project server will be drastically erased.

Throughout the data collection process, project team members worked to provide every opportunity for full provincial and territorial participation and input. With agreement from Human Resources Development Canada to amend the original deliverable dates, project deadlines were lengthened to accommodate the scheduling difficulties for some provinces and territories.

Data Cleaning

The purpose of data cleaning was to ensure that datasets from the provinces/territories were prepared according to protocol specifications. This means that the cases and service data must fall inside the date range specified for the cohorts, and that the data must be synchronous with each other. For reasons of efficiency and to avoid human errors, a set of 32 database programs were written to completely automate data cleaning. The computer programs performed the following functions:

- Searched each piece of data for logical problems, both within and between database tables.
- Identified all suspect cases.
- Automatically generated feedback reports for each province/territory, listing the identities of all problem cases.

It should also be mentioned that given the volume of data and complex inter-relatedness of the data, automated data cleaning was the best option to allow project to deliver results on time and with confidence. Automation was possible because of clear logic in the data retrieval protocol on the one hand, and the use of an industrial strength relational database management system and powerful database languages on the other.

The provinces/territories used the feedback reports and observations made by the project database manager to trace problem cases, to identify the reasons for inclusion/exclusion errors, to refine their programming logic, and to redo the datasets. Because the causes of most of the mismatch problems were closely related to the particular structure of the provincial/territorial database, the time it took the database analyst to overcome the identified problems varied. All provinces and territories were eventually able to produce nearly 100% logically clean data, although the data cleaning process was protracted in some instances. Data cleaning involved full participation of the provinces and territories throughout.

Data Analysis

For the purpose of this project, all data were selected according to specific time frames to restrict the volume of data to a manageable level. In addition, extensive reliance on dates in case selection would also allow us to empirically assess a key capability of the information systems, i.e., viability of date-based selection.

We discovered that date data (for example, child's date of birth, date service spell started, date child placed, etc.) in all provinces/territories were generally very complete and readily usable, and were direct and clear information requiring no interpretation. However, many coded data (for example, "Reason for investigation," "Maltreatment type," "Type of placement," "Legal Status," etc.) presented difficulties. The main reason for the problems was related to the coding schemes used.

Because provincial/territorial coding schemes are specific to their child protection statute, they vary in language and categorization. In addition, because it can be costly and confusing to update old codes with new ones in the database, some systems end up using different codes to represent the same thing. We also know that the labels of quite a few codes are cryptic and difficult for outsiders to decipher. Using the same set of codes to serve multiple purposes appears to be another common practice some of older systems, and this practice obstructs direct use of the information. In addition, we found out that sometimes a particular piece of information cannot be used as provided because its specific meaning is contingent upon other information concerning the case. If the same information could be taken to mean different things at different times, conditional on inadequately specified interpretation, then the coding scheme is incomplete.

Before analyses could proceed, provincial/territorial codes had to be mapped to project codes, a set of higher-order standard codes meant to apply across provinces/territories. Codes mapping was a task of fundamental importance because the meanings of the Outcome Matrix data collected in this project were directly determined by the extent to which provincial/territorial codes could be accurately mapped to project codes. For this reason, we verified our interpretations of codes and proposed mapping with each source province or territory to ensure that we used the available data accurately. This process involved the following tasks:

- Wrote programs to identify all distinct codes actually used in each provincial/territorial dataset to facilitate manual codes mapping. The purpose of this was to restrict the volume of codes conversion work.
- Manually mapped provincial/territorial codes to project codes the best we could, relying mainly on common sense.
- Updated the database with these links or maps.
- Wrote programs to produce reports listing all distinct provincial/territorial codes and their project equivalents. We also included the number of cases involved for each code.
- Sent codes conversion reports to the province/territory for review, and had follow-up discussions with our contacts.

- Updated the database with the final conversions. The updated data were then used in analyses or computations of child protection outcomes.

A key feature of the analysis design was full automation. To achieve maximum efficiency and to eliminate human errors, the entire computational process was automated. A database program was written to perform the following tasks in one single step and automatically.

- Prompted the user to pick a province/territory.
- Instructed the database to select the data needed for that particular set of computations.
- Manipulated the data using state-of-the-art relational database features.
- Computed various statistics for that jurisdiction.

We then linked Microsoft Excel to the database table that contained the results, and "moved" the results-set to an Excel spreadsheet, which project personnel could use instantly. This method of data management allowed us to produce the results accurately and to work efficiently.

Findings: Characteristics and Capacity of Provincial/Territorial CWIS

Characteristics of Provincial/Territorial CWIS

The summaries in this section were abstracts from the fuller descriptions presented in *Child Protection Information Systems in Canadian Provinces/Territories: Characteristics and Capacity* (Loo, Trocmé, Nutter, and Fallon, April 2001).

British Columbia

Features of the Information System

The Intake and Child Services System, a subsystem within the MIS SWS (Social Work System), is an IBM DB2 for OS/390 application implemented in mid-1996. Workers in the Ministry and most Aboriginal Agencies enter and access data online via terminals or PCs running 3270-emulation. The Intake and Child Services System maintains Family Service and Child-In-Care data on two main modules: Intake, and Child Services. A main feature of the Intake module is a temporary working file for capturing details during Intake and before a prior contact or file check can be completed. These Note Pad files can be sent to other workers or locations across the province. Intake information is used to create new service files or is copied into existing service files to update them. The Child Services Module is the core subsystem of the Intake and Child Services System. It allows workers to maintain information about the services the Ministry and Aboriginal Agencies provide to children. Its key purpose is to store and allow authorized personnel to access important personal and historical information about the child, the child's family, and placements.

Future Development Plan

The Ministry has a plan to replace the current application with an integrated system code-named "Integrated Case Management." However, details are not available at this time due to pending changes arising from the BC Government's Strategic Plan and the Ministry's Service Plan implementation, including the development of new service delivery models.

Alberta

Features of the Information System

Alberta CWIS is a case management system used for the following programs: child protection, "unmarried parents" (teen parents), post adoption support, placement resources, adoptions, and protection of children involved in prostitution (PCHIP). CWIS is a *child-based* system. *Family* information is computed through the use of affiliation tables generated near case opening.

Alberta CWIS 4.0, developed in 1990, is a Sybase application written using PowerBuilder and operates within a Windows environment. CWIS is utilized in over 140 worksites across Alberta. PCs in district offices are on Local Area Networks (LANs) and offices are connected via a Wide Area Network (WAN) to a provincial Windows NT server. Some offices not on the WAN gain remote access via the Internet. Workstations are PCs running Windows 95. CWIS mimics paper forms with drop down menus for field specific data entry and includes Microsoft Word for narrative text entry. CWIS is supported by training, manuals, and help lines. CWIS also includes calendar and bring forward functions that automatically keep track of case progress and remind caseworkers of important milestones. When information is updated, it is available immediately across the province.

Future Development Plan

Plans for further development include: (a) addition of a Child Welfare Financial interface; (b) redesign of the Placement Resources module; and (c) possible enhancements to support outcome measures. The system will also be upgraded to Windows 2000 as resources permit.

Saskatchewan

Features of the Information System

The Saskatchewan child protection information system consists of two subsystems: Automated Client Index (ACI), and Family and Youth Automated Payments (FYAP). ACI is an Adabas application, written in Software AG's Natural language, running on an IBM mainframe, and was installed in 1985. Workers enter and access data online using PCs running 3270-emulation. ACI has three sets of functions: Client Identification, Client Registration, and Client Movement. Client Movement identifies the office location of clients' files and has a built-in "Case Notes" case recording tool. FYAP, implemented in 1999 and running on a mid-range server, is an IBM DB2 for UNIX database payment system connected to ACI. Some of the data needed by the project, e.g., start date and end date of a child's placement reside in FYAP.

Future Development Plan

A new Child-in-Care module is being piloted that tracks a child's school grades, child behaviour, etc. for Crown Wards. There is no immediate plan to include Temporary Wards.

Manitoba

Features of the Information System

The Manitoba child protection information system, called Child and Family Services Information System (CFSIS), is a Sybase application written in PowerBuilder for OS/2 and was officially deployed in June 1993. Workers work online using Windows 9x and NT workstations connected to servers via Wide Area Networks and Local Area Networks. A detailed User Manual and dedicated CFSIS Help Line provide user assistance. CFSIS includes an automated system for notifying workers of actions required by program standards or the statute. Case recording, linked to CFSIS records, is done using Microsoft Word.

CFSIS is used by all Manitoba child and family service workers whether employed by Department funded private agencies or employed by the government. At present, CFSIS is operational to some degree throughout most of Manitoba. Accessibility of workstations and training are two main issues in CFSIS implementation, especially for workers in remote locations.

Future Development Plan

Since implementation, CFSIS has been modified based on user feedback and to meet changes required by new legislation, program standards, or service delivery arrangements. CFSIS is being converted from OS/2 to Windows and an online province-wide prior contact check added along with improved financial reporting functions. Integrating the Manitoba Risk Assessment Tool is also in the plan.

Ontario

Features of the Information System

Each of Ontario's 52 Children's Aid Societies manages its own information system. Province-wide service statistics (case openings and closings, number of children in care, etc.) are compiled through quarterly reports submitted to the Ministry of Community and Social Services. These reports only include aggregate statistics that do not allow for case-level analysis. Some case-level data is shared between CASs through a province-wide "Fast-Track" data extract system, designed to allow a CAS to discover whether a family has received previous child welfare services from other CASs in the province.

Future Development Plan

The Ministry's initial plans to develop a comprehensive information system that would provide a standardized platform across the province have not yet been implemented. The Ministry is currently examining the use of the Fast-Track data extract system to monitor outcomes.

Quebec

Features of the Information System

Each regional authority maintains its own statistics, reporting annually to the province aggregate data only. Some case-level data are collected province-wide on the Ministry's Centre Jeunesse Loi sur la Protection Jeunesse (CJLPJ) database. The CJLPJ tables are limited to registering case status, including case opening, investigation, legal status and admissions to care (for protection cases only). Beyond providing basic information on case status this data base has been very difficult to work with and is not seen as being useful as an outcome tracking platform.

Since the end of 1999, regional centres have been using a computerized expert system – Système Soutien à la Pratique (SSP) – designed to aid in setting intervention priorities. Many centers also make us of a computerized version of the ICBE, an adapted version of the Child Well-being Scales. These modules are used on a case by case basis, with an estimated 25% of social workers using them. Theses modules are not integrated into a database from which information can be retrieved.

Future Development Plan

The regional Directors through the Association des Centres Jeunesse have been moving towards a common fully integrated information system: the Système Clientèle Jeunesse (SCJ). The SCJ will integrate information across all children services, from protection to mental health services to Young Offender services. The system is designed to serve multiple purposes, including administration, outcome tracking, research and structured decision-making. The system is PC based and uses an Oracle platform with Visual Basic programming. The SCJ provides front-line workers with access to all file information across all types of services.

The child protection module of this platform has been in place since last year in four regions: Cote Nord (the pilot site), Outaouais, Saguenay Lac St. Jean and Gaspésie. The protection module is scheduled to be in place in most child protection centres by 2002.

New Brunswick

Features of the Information System

The New Brunswick Department of Family and Community Social Services uses a centralized Mapper database application called RPSS running on a Unisys 2200 mainframe. Departmental programs served by RPSS include Child and Family Services, Adult and Family Services, and Information/Assessment Services. The three main RPSS modules are: a) Person Index contains intake information on individuals including household, referral sources, and the results of investigation/assessment; b) Case Registration contains case plan, personal details, legal details, medical details, health details, significant events in the case, and the history of the support services provided to the case; and c) Resource Management is an inventory of departmentally approved resources and providers of services, like children's residential facilities, day care, etc. It also monitors service utilization and vacancies in approved child placements. Workers requisition services to meet the objectives of case plans through this subsystem. Data are linkable between a), b), and c). Workers enter data online, and the data is stored centrally in a Unisys mainframe.

Future Development Plan

Current systems development work focuses on the completion of "Client Service Delivery System" (CSDS), a more comprehensive information system serving Family and Community Services, Mental Health, and Public Health. This unified system has been several years in development and a number of completed modules have been put into operation. The final step will involve migrating all RPSS data to CSDS.

Nova Scotia

Features of the Information System

The Family and Children's Services Case Management System is a mainframe Adabas application for MVS first implemented in early 1980s and written in a mix of Natural, COBOL, SAS, and

CICS. Workers enter data online using terminals or PCs running 3270-emulation. A user's guide and a procedures guide are available.

The four core subsystems of the Family and Children's Services Case Management System are: (a) Client Registry that captures client identification and program involvement data; (b) Case Management that tracks client details, case details, worker analysis, placements, and caseload maintenance; (c) Child Abuse Registry containing information on people convicted of child abuse; and (d) Financial Services manages requisitions, payments, and prints cheques; These subsystems are linked.

Future Development Plan

The province is in the process of replacing the Family and Children's Services Case Management System with a server-based system. Oracle is a likely database choice. Tentative delivery date of the new system is some time in 2003.

Prince Edward Island

Features of the Information System

Case Action Record, a Mapper relational database management system running on the Unisys 2200 mainframe, serves over 25 different programs or services, and has been in use since 1974. The last system-level update occurred in the second half of 1980s. Case Action Record, mainly for processing cheques (including welfare payments), is a generic system for all departmental programs and services. Workers complete paper Case Action Records that data entry personnel manually key into Mapper at central locations. Case recording is done using the word processing software on the servers. Child protection data stored in Mapper are quite limited and accuracy is a concern, so departmental planners and managers often rely on manual counts or other sources to derive usable statistics.

Particularly troublesome for this project is that only current non-payment information is kept in the database. Therefore, even if the database includes outcome matrix variables, opportunities to retrieve historical client data are slim or do not exist. Annual purge of payment data means that even placement data, identifiable through payment records, exists for a maximum of 12 months. In short, the data in the database at best gives a snap shot of the current situation, not historical patterns.

Future Development Plan

The plan is to replace Mapper with a server-based system. Oracle is a likely database choice, and the application has the tentative name of "Integrated Service Management" (ISM). They envisage that ISM will have all the data needed to measure child protection outcomes as per the ten indicators in the Outcome Matrix. In addition, the Looking After Children measurement tool (LAC) will be integrated into this new system[20]. However, since the budget has not been approved, it is unclear as to when they will have the new system in place.

20 Workers have begun using the paper version of LAC.

Newfoundland and Labrador

Features of the Information System

The Client and Referral Management System (CRMS) is an Oracle application written in Visual Basic and deployed using Citrix's thin-client/server technology implemented in Spring 2000. All child and family service data were successfully migrated into the new system from the old one. Although all workers supply data to CRMS, only about 40% have the computer equipment to do so online so the remaining 60%complete paper forms that are then sent to a central location for data entry. CRMS is designed to satisfy two key organizational functions, client management and referral management. The client management function enables Health and Community Services Boards to manage demographics, client needs, service plans, and specific services for their clients. The referral management function provides a standardized method of identifying and managing all requests made to the Board for service, as well as those that originate at the Board. CRMS captures and manages four types of client data: (a) Client demographics and relationships, (b) client's needs and the services necessary, (c) actual services delivered, and (d) referrals.

Future Development Plan

Department adopted a phased approach in developing CRMS as a unified information system serving all program areas. In the area of child protection, more programming work is needed to reflect service delivery and workflow requirements, including the case referral process at intake and generating documents for workers to better manage their caseloads. Acquiring computer equipment to make CRMS available across the province is a parallel priority.

Nunavut

Features of the Information System

Nunavut started a simple computerized information system in April 2001. Statistics have to be manually compiled from paper files.

Future Development Plan

Nunavut plans to computerize more fully, but details are not available.

Northwest Territories

Features of the Information System

The Child and Family Information System (CFIS) is a SQL Server application written in Visual Basic. It contains Screening Report, Investigation Report, Record of Service (placement, service, and status), and Change of Information. Intensive training, and hardware and software installation across the territory took place in fall 2000. Official implementation of CFIS followed immediately. Workers enter data online. A training/user manual written within the context of service delivery is

available. CFIS appears to have the capacity to track many key indicators, not only for case management, but also for program monitoring, accountability management and research[21]. However, the newness of CFIS means that the amount of client data is limited at this time, even though they will soon have more client data (since April 1, 2000) back entered into CFIS.

Future Development Plan

Continual features upgrades are central in the implementation plan. There are plans to add a risk assessment module that will likely include child behaviour ratings and parenting capacity ratings.

Yukon

Features of the Information System

Yukon CWIS is made up of two subsystems: "Client Index 2000" (CI2000), and "Placement." Both are mainframe SAS applications. CI2000 has three main database tables: (a) Person table stores fixed client demographic data; (b) Activity stores service events data; and (c) Person-Activity table is a transaction table for linking data in the Person and data Activity tables. In addition, there are Case, Bring Forward, and Notes tables, linked to each other via Case ID. Workers do case recording using a screen form, and the information is stored in the Notes database table. The CI2000's coding system is very similar to Saskatchewan's.

The "Placement" system was installed in 1997 to manage foster homes and to process foster home cheques. Since the end of 1999 Placement captures placement information but only one person at a time can use it. Presently, the "Placement" system and CI2000 are not directly linked at the database level, although combining records from the two systems can be done.

While workers have the facility to enter data online using Windows PCs running a 3270 terminal emulation, most choose to fill out paper forms that are then sent to head office for data entry. The two forms they use for child protection services are: "Client Information," and "Placement Slip." Workers use their PCs mainly for looking up case information, not for data entry. On their Windows desktop, workers also have Microsoft Outlook for messaging and Microsoft Office.

Future Development Plan

The current system is under review.

21 The information available does not allow proper understanding of how data integrity is implemented in CFIS. Therefore, whether or not omissions and errors present a problem for the data is unclear at this time.

Findings: Preliminary Baseline Indicators

The summary data presented in this report is based on our analyses of the combined COCW database. The purposes of the analyses were to test the operational definitions of the outcome indicators, and to identify shortcomings in provincial/territorial CWISs in relation to using existing data to measure outcomes. The data were not verified for accuracy, and the one-month sample may not be representative of annual service trends. The data included in the pilot were strictly for testing purposes, not for making comparisons between jurisdictions or generalizations about individual jurisdictions.

A selection of child population statistics is included as an example of the type of supplementary context data that might be provided along with the child welfare outcome indicators. These estimates are derived from the Canadian Institute of Child Health's report on the *Health of Canada's Children* (2000) and from the Federal Provincial Working Group on Child and Family Services Information (1998) *Child and Family Services Statistical Report: 1994-95 to 1996-97*.

The findings are presented in five separate tables (context, safety, well-being, permanence, and support) using the combined data from all reporting jurisdictions. The selected format is designed to emulate a web-based display. See the web site for the U.S. Department of Health and Human Services *Child Welfare Outcomes 1998: Annual Report* (http://www.acf.dhhs.gov/programs/cb/publications/cwo98/Sec4/summary.html) and *Child Welfare Outcomes 1999: Annual Report* http://www.acf.dhhs.gov/programs/cb/publications/cwo99/index.html for examples of use of this type of data, as well as a comparison point in interpreting the indicators.

Context

Contextual factors must be examined in interpreting provincial and territorial child welfare statistics. Child welfare services respond to the varying needs of populations. Higher concentrations of poor families, limited access to services for families living in remote areas, and differential birth rates can all contribute to variations in child welfare statistics. The following table is an example of the type of data that could be used to help set jurisdiction-specific a contexts for interpreting outcome indicators.

Table 3: Sample Context Indicators (COCW II Pilot Data, 2001)

Child Population (1999)		
	Children under 18	
A	Canada*	7,562,300
B	Reporting Jurisdictions (BC, AB, MB, SK, NB, NS, NF and YK)*	2,905,100
	– % of Aboriginal Children (Reporting Jurisdictions)**	7%
	– Rate of Child Poverty (Reporting Jurisdictions)***	21%
Maltreatment Investigations		
	Investigations (Canadian Estimates: 1998****)	135,500
	Substantiated Investigations (CIS)****	61,201
	Incidence of Substantiated Maltreatment per 1,000 Children (0–15)****	**9.71**
	Forms of Investigated Maltreatment (COCW Phase II: 2,278 cases closed January 2000: AB, BC, NB, SK)	
	– Physical Abuse	20%
	– Sexual Abuse	5%
	– Neglect	46%
	– Emotional Maltreatment	8%
	– Other	21%
Children in Care		
D	Canada March 1999*	59,560
	– Incidence of Placement per 1,000 Children (0–18) (D/A)	**7.88**
E	Reporting Jurisdictions*	28,494
	– Incidence of Placement per 1,000 Children (0–18) (E/B)	**9.81**

* *Child and family services statistical report: 1996-97 to 1998-99* (2001). Hull, Quebec: Child and Family Services Information, Human Resources Development Canada.

** *The Health of Canada's Children:* 3rd edition. Canadian Institute of Child Health (2000), from Tables 6-3 and 6-1 (controlling for differential age distribution)

*** *The Health of Canada's Children:* 3rd edition. Canadian Institute of Child Health (2000), from Table 7-7

**** *The Canadian Incidence Study of Reported Child Abuse and Neglect (CIS): Final Report*. Trocmé, MacLaurin, Fallon, et.al. Ottawa, Ontario: Minister of Public Works and Government Services Canada, 2001.

Safety

Table 4: Safety Indicators (COCW II Pilot Data, 2001)

A	# of Child Cases Closed in January 2000 (BC, AB, MB, SK, NB, NS, NF and YK)	8,200
	Average Months of Service (Standard Deviation)	8.4 (14.1)
Recidivism		
B	# of Child Cases Reopen within 12 Months of A	2,569
	12 Month Service Recidivism* (Child Cases: A/B)*	**31%**
	12 Month Service Recidivism* (Family Cases)	29%
	12 Month Recidivism of Substantiated Maltreatment (BC, NB, NS)**	43%
Injury		
	Severe Injury Rate for Recidivist Cases	**NA**
	Severe Injury During Service Spell for Cases Closed in January 2001	**NA**

* Cases re-opened for child welfare services within 12 months of their being closed

** substantiated cases closed January 2000 reopened within 12 months and substantiated/substantiated cases closed January 2000

Comment: Recidivism is calculated in three ways: (a) Child service recidivism; (b) child recidivism of substantiated maltreatment; and (c) family service recidivism. Substantiation is an incident and child-specific concept. Child and family recidivism data produced similar rates. As expected, the recidivism rate among substantiated cases is higher than among all cases because all cases includes a substantial number of cases in which maltreatment was not substantiated by the investigation at case opening.

The 12 month service recidivism rate is higher than anticipated. The 12 month recurrence of maltreatment rate documented in the U.S. by the 1997 NCANDS is only 11%. The COCW Phase II Safety data range between jurisdictions was 16% to 57%, with most falling into the 25% to 30% range. The rate of recidivism for substantiated cases is higher, but based on a smaller sample. Notwithstanding the limitations of the COCW Phase III estimates, these very preliminary rates of recidivism are surprisingly high and should be analysed further and replicated.

Well-being

Table 5: Well-being Indicators (COCW II Pilot Data, 2001)

# of Child Cases Closed in January 2001 (AB, MB, SK, NB, NS, NF and YK)	5,039
Average Months of Service (Standard Deviation)	9.6 (18.6)
Average Age (and Standard Deviation)	8.7 (5)
Cognitive Development	
% of Children at Grade Level upon Closing	**NA**
# of Youth Discharged from Long-term Care (2 Years or More)	
% Who Completed High School	**NA**
Socio-emotional Development	
% of Children Whose Socio-emotional Ratings Improved While Receiving Services	**NA**
% of Youth with YOA Charges While Receiving Services	**NA**

Comment: At this point child well-being data are not available electronically. Some jurisdictions have limited education and or behavioural data, others have discussed the possibility of matching data with education statistics. Some risk assessment tools include behavioural data and the Looking After Children, Assessment and Action Records include both behavioural and educational data.

Permanence

Table 6: Permanence Indicators (COCW II Pilot Data, 2001)

A	# of Child Cases Closed in January 2001 (AB, MB, SK, NB, NS, NF and YK)	5,039
	Average Months of Service (Standard Deviation)	9.6 (18.6)
B	# of Children Who Experienced at Least One Spell in Care	856
Placement Rate		
	Placement Rate (B/A)	**17%**
C	In Care Population on December 31 1999* (BC, AB, MB, SK, NB, NS, NF and YK)	27,515
D	Child (0-18) Population 1999* (BC, AB, MB, SK, NB, NS, NF and YK)	2,905,100
	Placement Incidence (1,000 x C/D: children 0–18 in care on March 31, 1996 per Thousand in Reporting Jurisdictions)	9.47
Moves in Care		
	Average # of Placements (AB, MB, SK, NB, NS, NF and YK) (Standard Deviation)	**2.35 (2.83)**
	– One Placement	54%
	– Two Placements	22%
	– Three to Five Placements	16%
	– Five or More Placements	8%
Reunification and Adoption**		
	% Reunified (AB, MB, SK, NB, NS) (Children Placed and Reunified/Children Placed)	68%
	– Average Months from Admission to Care to Reunification	**8.4 (11.3)**
	% Permanent Crown Wardship (AB, MB, SK, NB, NS) (Children with CW Legal Status/Children Placed)	10%
	– Average Months from Admission to Care to Crown Wardship (Standard Deviation)	**16 (12)**

* *Child and family services statistical report: 1996-97 to 1998-99* (2001).Hull, Quebec: Child and Family Services Information, Human Resources Development Canada.

** 20% of cases unclassified: may include youth leaving CW care without returning home or becoming Crown Wards (e.g. YOA or AWOL), others may have been missed because of missing data or code matching.

Comment: Case-flow placement and reunification indicators provide a particularly powerful tool for analysis of children's experience in the child welfare system. Less than 20% of children who receive services are placed in care. Approximately 70% of children placed in care return home, 10% of children placed in care become permanent crown wards, and permanence status for 20% of placed children could not be tracked. Overall this means that only 2% of children in Cohort B became permanent crown wards.

In many jurisdictions, permanent crown wards represent up to 50% of children in care on any one day. Understanding the pathways to permanent removal/crown wardship, especially for children

who are not subsequently adopted, is very important. It may be important to track outcomes for long-term wards separately, to ensure that issues specific to this population are not hidden by the experience of children in short term temporary care.

While the average time to reunification is well under a year (8.4 months), there is significant variation underlying this average as indicated by the relatively large standard deviation (11.3 months). This indicates a positively skewed distribution with some children having relatively long times in care compared to most who are in care less than eight months before reunification. Use of quartiles or graphed frequency distributions may provide a much more informative picture of time in care during one spell of service.

More than half of placed children (54%) experienced only one out of home placement and three-quarters (76%) experienced two or fewer out of home placements. The 2.3 mean number of out of home placements illustrates the distortion inherent in using the mean to summarize skewed distributions in which there are relatively few extreme scores. In this case 7 out of 856 children experienced 15 to 38 out-of-home placements. These extremes were present after we took care to exclude non-significant placements.

While considering these data it is extremely important to remember that these placement and permanence data are from only one spell of service. Our recidivism data indicate that 31% of served children will be served again within one year after case closing. Thus we would expect lifetime placement rates, total time in care, and proportion of served children who became permanent crown wards to be greater than observed in the one spell of service documented for Cohort B. How much greater is an empirical question. For example, children may be much more likely or less likely to be placed out of their homes, for longer or shorter periods, and made permanent crown wards during subsequent spells of service.

Family and Community Support

Table 7: Family and Community Support Indicators (COCW II Pilot Data, 2001)

A	# of Child Cases Closed in January 2001 (AB, MB, SK, NB, NS and Yk)	4,929
Housing Stability		
	Average Number of Address Changes	NA
Parenting Capacity		
	% of Children Whose Parents Parenting Ratings Improved While Receiving Services	NA
Over-representation and Placement Matching (First Nations)		
	% of Aboriginal Children in Population (AB, MB, SK, NB, NS and YK)*	**10%**
B	# of Aboriginal Child Cases Closed in January 2000 (AB, MB, SK, NS, NB and Yk)	1,523
	% of Children Served Who Are Aboriginal (B/A)	**31%**
C	# of Children Placed in Care (AB, MB, SK, NB, NS and YK)	844

(continued on following page)

Table 7 *(continued)*

D	# of Aboriginal Children Placed in Care (AB, MB, SK, NB, NS and YK)	390
	% of Placed Children Who Are Aboriginal (D/C)	**46%**
	Non-Aboriginal Child Placement Rate (C-D)/(A-B)	20%
	Aboriginal Child Placement Rate (D/B)	**26%**
E	# of Aboriginal Children Placed in Aboriginal Homes (AB, MB, SK, NB, NS and YK)	**141**
	% of Aboriginal Children Placed in Aboriginal Homes (AB, MB and SK) (E/D)	**36%**

* CICH Health of Canada's Children (2000), 6-3 and 6-1 AB. MB, SK, NB, NS and YK (factor differential age distribution)

Comment: As with child well-being, most family and community support indicators were not available The available data from this study indicate that aboriginal children are proportionately over represented among both family services and children in care. Aboriginal are estimated to be 10% of children in the population but 31% of children served in the jurisdictions supplying these data. One-fifth (20%) of non-aboriginal children were taken into care while about one-quarter (26%) of Aboriginal children were taken into care. Viewed another way, about one-third of children served were Aboriginal but about one-half of the children taken into care were Aboriginal. These estimates must be interpreted with extreme caution because there is evidence data from some jurisdictions do not include data from some agencies that primarily service Aboriginal families and children. And it is important to remember that these service and placement data are from just one spell of service. We have not calculated the degree to which aboriginal children may be disproportionately represented among cases reopened in Cohort A.

Findings: Data Collection Capacity

Case-flow Tracking

All participating jurisdictions demonstrated the capacity to generate case-flow data tracking cases through the child welfare system. CWISs are primarily used to report cross-sectional month-end or year-end data. Cross sectional data provide adequate representation of the distribution of service resources but do not accurately represent child or family service histories. For example, the 1997 AFCARS foster care data reported for the United States in their annual outcomes report shows that the median length of stay for children in care measured cross-sectionally at year-end is 24 months, whereas measured as children exit care the median length of stay is in fact only 10.8 months[22].

To fully represent one spell of service, COCW outcome indicators were collected at the time when clients left the child welfare system. To test the feasibility of this type of case-flow tracking, the COCW pilot data were collected for clients discharged in January 2000 (Cohort A, used to measure recidivism) and in January 2001 (Cohort B: used to measure recidivism and all other indicators). All participating jurisdictions were able to produce case-flow tracking data.

Tracking Families

While tracking children proved to be fairly straightforward, tracking families was more problematic. Family-level data are required to describe, for example, family housing stability (family moves) and parenting capacity indicators. Many of the existing provincial/territorial databases cannot tell the number of distinct families served in a specified time period following sexual abuse of children allegations. While service events in the participating jurisdictions were always linked to the child, they are not necessarily linked to the child's family at the same time. In addition, some CWISs do not have Family IDs per se. In such cases, the File ID (also known as Event ID, Involvement ID, or Group ID) was the best or only proxy for Family ID. A File ID is event-based, e.g., investigation, placement, etc., and generally lists all individuals in the household involved or having a significant role in relation to the event. It is formed on the start date of or during an event, and is a unique identifier. File ID can be used as a proxy of Family ID because all minor children in the family are usually tagged with a File ID.

Different jurisdictions define these proxies in different ways. For example, in Alberta CWIS the group ID is attached to all significant persons at investigation. A child who is investigated more than once will have more than one group ID and the persons sharing any of the child's group IDs may differ for different investigations. Databases with service data linked to the child and identified by means of File IDs do not allow family-level statistics to be easily computed. While it

22 http://www.acf.dhhs.gov/programs/cb/publications/cwo98/Sec4/summary.html, Table C: Children in Foster Care

is possible to tell the number of children (distinct or otherwise) served or the number of events (investigations, placements, moves in care, etc.) in a given period of time, it is very difficult to meaningfully describe, for example, the number of families served in the last fiscal year without complicated programming that must be based on very clear definition(s) of family.

Data Availability

Data availability varied by jurisdiction and by type of data. Generally provincial and territorial CWISs have complete or near complete coverage of child dates of birth and service spell dates, with less systematic coverage of other fields. The following description of data availability does not account for coding problems that may limit the usefulness of the available data (discussed in subsequent sections of this report), nor does it account for the relatively frequent use of "Unknown" or similar codes. While the "Unknown" category is a needed code for situations where repeated attempts to collect the information have failed, it appears to be over-used as a system default or for reasons of convenience.

The following variables are available for 100% or nearly 100% of the children in the data received from all provinces/territories:

- ✔ Child's date of birth
- ✔ Child's gender
- ✔ Date closed in Index Month
- ✔ Date service spell started
- ✔ Date re-opened
- ✔ Date of placement
- ✔ Date legal status granted

Variations exist between provinces/territories with respect to availability and amount of data on key service event descriptors requested by the project. The following table summarizes data availability by participating jurisdiction.

Table 8: Data Availability by Province/Territory

	AB	BC[1]	MB	NB	NF	NS	SK	YK
Reason for Investigation	Near 100%	100% (Also have secondary reasons)	Near 100%	Near 100%	Near 80% (Also have secondary reasons)	Near 65% (Also have secondary reasons)[2]	NA	100%
Maltreatment Substantiation	NA (embedded in screening/ investigation Outcome code)	90%	Sporadic	100% (Mainly inferred data)	NA	100%	NA	NA
Maltreatment Type	Near 100%	90% (Also have secondary type)	Sporadic	Near 100%	60%	NA[3]	Near 45%	NA
Legal Status	100%	—	100%	100%	100%	100%	Near 21%[4]	100%
Reason for Placement	NA[5]	—	NA	NA	NA	NA[6]	NA	NA
Placement Type	85%	—	100%	100%	100%	100%	100%	100%

1 British Columbia could not submit Cohort B data in time for cleaning and inclusion.
2 Nova Scotia captures information called "Major presenting problem" (MPP), similar to "Reason for investigation."
3 Nova Scotia captures information called "Major presenting problems" (MPP). MPPs could be taken to mean either the "Reason for investigation" or "Maltreatment type," depending on the result of the investigation.
4 79% of Saskatchewan's legal status data have a date but no description of the legal status.
5 Alberta has "Reason for removal," not "Reason for placement."
6 Nova Scotia's information given for "Reason for placement" really pertains to "Legal status."
NA Not available

Different jurisdictions provided a variety of data that could be used for ethno-cultural matching. The following types of ethno-cultural information were collected: Aboriginal status, racial origin, national origin, and religion. About two-thirds of the children in Cohort B had data on one or more of these variables. About two-fifths of the children in Cohort A had data on one or more of these variables. Data on these variables was available for about one-half of the substitute care providers identified in relation to Cohort B. See Table 9 for more details.

Table 9: Availability of Ethno-Cultural Matching Variables

Variable	Persons		
	Children		Substitute care providers
	Cohort A	Cohort B`	Cohort B
Aboriginal Status	42%	72%	54%
Racial Origin	37%	68%	47%
National Origin	40%	64%	48%
Religion	39%	68%	44%
N	8,200	5,148*	5,349

* Smaller number for Cohort B is partially attributable to absence of Cohort B data from BC.

Most legal status types (81%, 5,475/,6729) are accompanied by legal status dates. This leaves one-fifth of the legal status events with no definite date reference within the spell of service. Alberta's address change data pertains to both children's moves in care and the moves of their natural families.

Only two provinces reported injuries or deaths. Four incidents reported for Cohort A and six incidents were reported for Cohort B.

School grades were reported only by only one province. Unfortunately, these grades were reported without dates. Therefore it is impossible to discover from these data whether these children are in the age appropriate grade levels.

Coding Issues

Inconsistent and poorly developed coding schemes presented the most significant obstacles to analysing the data submitted by the participating jurisdictions. While some of these problems are inherent to differences in statutes (e.g., legal status vs. grounds for finding children in need of protection) and difference in the structure of provincial and territorial service delivery systems (e.g. types of out-of-home care providers), others are caused by poorly developed coding schemes.

One of the most significant problems is the inclusion of more than one variable or concept in a single field. For example, in some jurisdictions the "reason for investigation" field includes a combination of codes for parent-level problems (e.g., substance abuse), types of maltreatment, injury, risk, and substantiation. Likewise some placement type fields may combine legal status, type of resource (foster, group, etc.), and reason for placement.

Using the same set of codes to serve multiple purposes appears to be another common practice in a number of older systems. Of particular concern was the situation where the interpretation of a particular field was contingent upon other information concerning the case. In such situations the same information could be taken to mean different things at different times.

As provincial/territorial jurisdictions update or change their CWIS these coding problems should be resolved using coding schemes that are logical and well-designed using layering. For example, first layer = Maltreatment type (physical abuse, sexual abuse, neglect, etc.), and second layer = specific maltreatment (for physical abuse, have bruise, fracture, etc, etc., and for sexual abuse, have touching, etc.). In this way, multiple types of abuse and specific maltreatments for each abuse type are captured. Relational database management systems and well-written applications can easily track all details – no more lumping together and the data could be "sliced," retrieved, analyzed, or manipulated in numerous ways. A child may be neglected and physically abused, have sustained a minor injury, and family violence and substance abuse may be noted in the family. All of these should be separately recorded.

One of the reasons coding issues like these are so important relates to the function of information systems for setting targets and tracking outcomes. Permanence is a good thing. Our measure of permanence is days to achieving permanence, i.e., the length of impermanence. If only reunification, adoption, and emancipation are classified as permanent placement, the target condition that can be most readily manipulated is reunification. This definition pulls workers toward reunification. Emancipation cannot be hurried and adoption, at least of older or "special

needs" children is unlikely. Tracking the intent of the placement may provide a more accurate measure of permanence. In such a case days to permanent placement would be counted from the date a child enters care until that child is placed in a placement that is intended to be permanent. "Planned permanent placement" could be an alternative among the reasons for placement codes. The time in temporary care clock would stop. Of course, if a child was removed from a "planned permanent placement," the time in temporary care clock would not only restart, it would be set forward to include all the time the child had been in the "failed" permanent placement. This would require reworking the reasons for placements codes in some jurisdictions.

Data Requests

The COCW Phase II project examined the feasibility and benefits of collecting and analysing case-level data using both family and child level identifiers. Using an industrial strength relational database management system and powerful database programming languages we combined and analyzed the diverse datasets. This process was essential for the purposes of the Phase II project since it was the only way we could assess issues discussed above related to completeness and quality.

Planning for future data requests should distinguish between data to calculate indicators and data of interest in analysing these indicators. For example, the COCW codes for type of placement included categories that are not necessary for deriving the permanence indicator if permanence is based only on type of placement, but are relevant to other analyses of placement patterns and to other possible definitions of permanence.

All of the indicators could be analysed at the child level, even though two of the indicators, parenting capacity and family moves are measured at the family level. Having a family identifier for each child allows analyzing data at the family level. And family level analyses may be directed at answering different questions. For example, recurrence of maltreatment occurs in families. In some cases, not all of the children in the family are maltreated. Children in some families are much more likely to experience maltreatment and recurrence of maltreatment than children in other families. It may be useful to conduct analyses that identify the characteristics of children most likely to be maltreated and the characteristics of families in which children are most likely to be maltreated. And it may well be that different kinds of children are at greater risk in different kinds of families. These kinds of analyses can only be done if we have both child ID and family ID.

The question of centralized use of aggregate vs. case-level data will also need to be considered. If properly derived, only aggregate data are required for generating reports of the 10 Child Welfare Outcome Indicator Matrix indicators, although this would require that case-level data cleaning and analyses be consistently completed at the provincial/territorial level.

For analytic purposes case-level data will be required, but this could be limited to specially commissioned analyses and do not require that a national infrastructure be developed to handle case-level data on a regular basis. However, the costs of handling appropriately cleaned and coded case level data is trivial compared to the repeated development costs of a series of specially commissioned analyses, each one of which must cycle through the whole process.

Recommendations

Little is known about the children and families who receive child welfare services across Canada. Designed to protect children from further abuse and neglect, Canadian child welfare authorities do not currently report rates of recidivism. Most jurisdictions do not track the proportion of children who are reported to child welfare services and are subsequently admitted to care. Although front-line child welfare workers invest significant amounts of time documenting their activities, this rich source of data is not easily accessible to managers and policy makers. In a context of growing public concern about the safety and well-being of children, government requirements for service accountability, and increasing challenges for agencies to develop better targeted and more effective services a more systematic approach to tracking service outcomes in child welfare is required.

Client outcome tracking systems are required to support outcome based service planning and policy-making. Having access to a broad range of outcome data provides a basis for evaluating the performance of service delivery systems and setting targets for initiatives designed to improve services. A well-coordinated national approach will allow policy makers to learn from the experiences of other jurisdictions using comparable information and standards.

The COCW project was initiated to support the development of such an approach. A national outcome framework was developed in Phase I of the project. Phase II has tested the capacity of provincial and territorial Child Welfare Information Systems (CWIS) to track service data that could be used to calculate outcome indicators. On the findings from Phase II three sets of recommendations have been developed related to: (a) changes to the outcome indicators, (b) data collection options, and (c) a list of recommended variables that should be integrated into all CWISs.

A: Revised Outcome Indicators

A1: Maintain Four Ecological Outcome Domains

The four domains (safety, child well-being, permanence and family and community support) provide a conceptually important multi-level framework for interpreting and tracking outcomes in child welfare. While indicators are not as easily available for the domains of child well-being and family and community support, keeping these at the forefront is the best way to ensure that data will be eventually tracked in terms of these very important domains.

A2: Maximize Comparability with National and International Statistics

Where feasible indicators should be operationalized to maximize comparability with existing child welfare outcome measures. The USDHHS track outcomes in two key domains (safety and permanence) that correspond to several of the COCW indicators[23]. Child well-being outcomes should also be developed to correspond to the new NLSCY based Looking After Children measures being developed by Dr. Flynn (University of Ottawa) with the Child Welfare League of Canada.

A3: Increase the Number of Variables for Some Indicators

The original ten indicators that had been identified for the Outcome Matrix were selected in part to simplify the task of developing a common outcomes framework. In practice, a simple ten-indicator list has proven to be too narrow to provide meaningful information. For example, time to permanence as a single indicator masks the different pathways for children returning home compared to children who become crown wards. Instead we have broken this down in terms of four indicators: (a) percentage of children reunified; (b) time to reunification; (c) percentage of children made permanent wards; and (d) time to permanent wardship. When data are available it may be useful to separately track adoptions and other permanency options.

There is widespread agreement that adequate family income and housing quality are important protective factors strongly related to the likelihood of children's protection needs and/or parents' abilities to adequately care for their children. From this perspective it is clear that the concepts of income and housing should eventually be added the present 10 indicators. It would be most useful to collect these data in exactly the same way as done by Statistics Canada in their censuses because this would allow direct comparison to various segments of the Canadian population and to Canada as a whole.

A list of specific recommended indicators is presented in the final section of this report: *Recommended Common Data Fields.*

A4: Use Median and Quartiles, Not Means

There is significant variation and skewed distributions underlying the arithmetic means reported in this pilot study. For example, while most children spend relatively short periods of time in care, the experience of long-term wards skews the average time in care calculations. The use of the median (50th percentile) provides a more accurate representation of the *typical* experience of children who have experienced care. This kind of *distortion* is always present when the arithmetic mean is used to summarize a skewed distribution and many of the distributions of indicators in the outcome matrix will be positively skewed, resulting in means that are significantly greater than the medians of those distributions. For all outcome matrix indicator distributions we recommend

23 http://www.acf.dhhs.gov/programs/cb/publications/cwo98/index.html and http://www.acf.dhhs.gov/programs/cb/publications/cwo99/index.html

presenting the minimum, maximum, and quartiles in addition to the mean. In this way readers would know the ranges of scores that enclosed each 25% of scores moving from lowest to highest. The shapes of some distributions may be so important to meaningful interpretation that graphical representation of the distributions may be required as well.

A5: Review Cohort Selection

The two cohorts used for the purpose of the COCW Phase II Pilot were designed to provide longitudinal (case-flow) tracking that would reflect the experience of children related to one spell of service in the child welfare system and would be simple enough to allow for standardized data requests across jurisdictions. Given the structure of current CWIS, recidivism is still best measured in terms of a twelve-month follow-up of cases closed during a given period. Improvement of this indicator should focus on moving from service recidivism to recidivism of substantiated maltreatment.

For children in care, however, two cohort selection options are possible: tracking at the point where a child's case is closed (current Cohort B) or tracking exits from care (even though the case may still be open as a family service case). The later approach is used in several of the USDHHS outcome indicators and should be considered as a feasible addition to the COCW Cohort B.

Consideration should also be given to annual case-flow descriptions of the experiences of children and youth in long-term permanent care. To discover if the care and well-being of these children is improving, they should be tracked annually. Otherwise, we will have no systematic data about these children until they leave care. While only a relatively small proportion of children taken into care remain in care for more than one year, this relatively small group of children receive a disproportionately large amount of child welfare resources over the course of their childhoods. Annual outcome information about these children would support timely system-level responses to their needs.

A6: Articulate Specific Objectives

The original list of ten indicators should be replaced by domain-specific objectives that the indicators were selected to measure, similar to the objectives articulated in the 1998 U.S. Child Welfare Outcomes report (http://www.acf.dhhs.gov/programs/cb/publications/ cwo98/Sec4/summary.html). On the basis of the original list of ten indicators, the following draft list is an example of the types of objectives that could be expressed. As baselines emerge, these could be defined more specifically.

Safety

Reduce the recurrence of child abuse or neglect.

Note: While we would like to reduce the recurrence of child abuse or neglect, it would be important to ensure that this type of objective did not discourage providing recurrent services or encourage keeping cases open longer than needed. As long as recurrence is measured only in terms of service recurrence there is a significant risk that this outcome indicator could artificially distort

service patterns. Therefore recurrence of service and recurrence of substantiated maltreatment should be measured.

Reduce the occurrence of severe injuries due to new incidents of child abuse or neglect.

Well-being

Increase the emotional and behavioural functioning of children while they are receiving child welfare services.

Increase the proportion of children at age-appropriate grade level while they are receiving child welfare services and at their exit from the child welfare system.

Permanence

Reduce admissions to foster care without compromising safety and child well-being.

Note: Foster care is an important treatment service for some children and a important form of parenting relief for some families. Until well-being is adequately tracked, there is a significant chance that a decrease in admissions rate could lead to negative outcomes for children and families.

Reduce the proportion of children who have three of more placements breakdowns.

Note: A simple measure of placement change can have unintended effects such as maintaining children in inappropriate placements just because to move them is bad. Defining all placement changes as a negative mitigates against a planned series of goal directed placements intended to prepare the child for a normal place in the community and the community to accept the child.

Increase the proportion of children who are reunified, adopted, or in long-term permanent care and decrease the time to permanence.

Note: Including long-term permanent care is an important option because a long-term inclusive placement may be the most positive option for some children and families.

Family and Community Support

Increase housing quality and residential stability for families receiving child welfare services.

Increase the parental capacity of parents while they are receiving child welfare services.

Decrease over-representation of Aboriginal children in care and increase their placement in Aboriginal homes.

Note: While the over-representation of Aboriginal children in care has hit crisis proportions in some jurisdictions, it is important, as with all the indicators, to monitor this objective relative to child safety and well-being to ensure that the objective does not simply lead to a withdrawal of needed services (e.g. children left in high-risk homes with no services, or to moving children to inadequately serviced Aboriginal placements). Support for the development of adequate Aboriginal family support services, placement services, and inclusive care is essential to ensure that this objective leads to improved outcomes for children.

B: Data Collection Options

The data COCW Phase II pilot has demonstrated that it is feasible to collect and use case-level data to derive meaningful outcome indicators. While essential for the pilot study, this process would require an important centralized infrastructure commitment. Setting aside cost issues, there are two major advantages to having access to case-level data: (1) it is the best way to ensure that indicators are consistently calculated across jurisdictions and (2) it would allow for the type of analyses needed to adequately contextualize such data.

Before data can be used or analyzed, it must be cleaned. Data cleaning may be more easily accomplished by each jurisdiction with the use of a centrally generated standardized data cleaning protocol. It is very important to underscore the need to improve the quality of data in current CWISs. When provinces/territories review the quality of their current data, they will discover weaknesses in the information systems that need to be overcome. Most of the problems we have discovered could be corrected via stronger data integrity control in database design and application design, more logical coding schemes, and better user training and support.

Four options combining different levels of standardization and data collection centralization are briefly discussed below.

B1: Canada-wide CWIS

The "gold standard" option would be to develop a common Canadian CWIS. The Uniform Crime Reports and CPIC databases would be examples of such systems. In addition to allowing for national records checks (essential in those instances where families may be avoiding child welfare supervision by moving out of province), such a system would provide the most reliable standardized basis for tracking outcomes.

This option is unlikely to be feasible in the short-term because of costs, variations in statutes and difference in the structure of provincial/territorial child welfare systems.

B2: Canada-wide Initiative to Develop a Common Outcomes Database

Unlike the previous option, the common outcomes database would not be a fully shared CWIS but would include non-identifying case-level data to be used solely for reporting and analysing service and outcome statistics. The data would be uploaded on an annual or semi-annual basis using a process similar to the one tested in the COCW Phase II initiative. This option would yield a very rich special purpose policy and program planning research database without the costs and time required to develop a fully integrated CWIS. This option would require a moderate investment in resources.

In the United States the National Child Abuse and Neglect Data System (NCANDS) collects case-level data in some states and the Adoption and Foster Care Analysis and Reporting System (AFCARS) collects case-level data in all states. It is important to note that the U.S. Federal

Government has for many years played an active role in cost-sharing and even in guiding state child welfare policy and legislation. Participation in AFCARS, for example, is a condition for receiving federal foster care and adoption support funds.

Given that child welfare is solely a provincial or territorial mandate in Canada, a national database would need to be developed as a joint initiative. New cost-sharing initiatives seem unlikely in the current federal/provincial and fiscal restraint climate. However, the cost of this type of system would not be great for any one jurisdiction if sharing the centralized costs could be agreed and each province and territory would then supply their own data with coordination and consultation from the central unit.

A central data collection and analysis unit would also be a forum for national discussion and coordination of practice, context, and outcomes definition as well as results reporting. It is difficult to see how information from different jurisdictions could be reliably compared without substantial central coordination. Because each province and territory has its own unique legislation, policies, and service delivery, interpretations across jurisdictions would always be subject to caveats about the comparability of meanings contained in the numbers. However, without centralized coordination and analysis it is not clear who would be in a position to identify and disseminate these caveats.

B3: Coordinated Aggregate Data Collection Using Common Codes and Data Fields

Given the front-end costs of developing a centralized system and the lack of a Federal mandate with respect to the delivery of child welfare services, we recommend the development of a nationally coordinated data collection system with case-level data maintained in provincial and territorial databases, and aggregate statistics submitted nationally on an annual basis. To allow for meaningful comparisons, jurisdictions would need to agree to a common set of codes and data fields. The difficulties with data mapping encountered by the COCW Phase II project show that it is generally not feasible to reliably derive comparable indicators using different codes.

This option would require a commitment from participating jurisdictions to a common set of codes or fields. The commitment could be designed on an incremental basis. Some data fields could be redeveloped at little cost; others would be added as jurisdictions update their CWIS.

The coordinated data collection option would not require a major national investment of resources since most of the data cleaning and manipulation would be done by the provinces/territories. However, some financial support for national coordination, reporting, and analysis will be required. The collection and dissemination of these data could be assumed by the Federal Government through an organization like the Provincial Working Group on Child and Family Services Information. Alternatively, an independent research organization, such as the Centre of Excellence for Child Welfare could be used to house, analyse and disseminate these statistics.

While the aggregate data option can provide useful data (this is the primary source of data collection for NCANDS), it would not allow for any secondary analyses. With a common set of codes and data fields, it would, however, be feasible to develop customized case-level data requests for additional analytic purposes.

B4: Track, Clean and Report Data from Each Jurisdiction

The final option would be to extend the COCW Phase II work by having jurisdictions submit case-level data based on their current information systems. This option is not recommended given the data mapping problems inherent in working with such a heterogeneous group of CWIS.

C: Recommended Common Data Fields

C1: Data Structure

All of the CWISs that supplied data for this project have the capacity to generate basic case statistics within a relational database management system. A well-designed relational database management system can provide detailed dynamic histories of case events to meet user-defined criteria related to, for example, date range, type of maltreatment, or type of placement. Some CWISs will require some modifications to allow flexible data retrieval, to minimize errors in the data, or to permit cross-jurisdictional comparisons. In addition to the core fields described in the next section (C2), we recommend the following.

Data Linking

Absence of Family ID in the database and reliance on events-derived proxies caused a major difficulty for some systems. Service data are always linked to the child, but are not automatically linked to the child's family at the same time. While identifying a child's family or computing family-level statistics is still possible relying on complicated programming, it is not a practical approach at all. We recommend that provinces experiencing this limitation should alter their database structure and modify their applications to accommodate Family ID information as well. Specifically, we recommend that they include a "Family-Child" reference table in the database, and add a Family ID column to all events tables in the database to allow easy linking of events data to either the child or the child's family. It is extremely important that all affiliations in Family-Child reference tables are dated so Family IDs accurately identify family members at specified times. This will require two developments for most CWISs. First will be the development of very explicit defining who should and who should not be included as family members. These rules would to decide the initial membership of families and their changes in membership over time. Second, workers would be required to review and update at specified intervals the membership of each family receiving services. For data and analyses based on Family IDs to be comparable across jurisdictions, the rules for inclusion and updating family IDs would have to be comparable across jurisdictions.

Unbroken Historical Data

A main advantage of a relational database is the ability to store and retrieve historical data easily. Because of the way the system stores and tracks data, huge amounts of data can be stored efficiently and retrieved speedily. Failure to maintain historical service data was a problem in CWISs that did not track address changes, but simply replaced old address information with new information. Using the full capacity of relational data management systems, such historical files are easily kept without cluttering the case face sheets with complex coding systems.

The following example using maltreatment codes illustrates in tabular form the potential for a small number of data fields to provide a dynamic profile of service history[24]. Note the small number of columns or data fields needed to provide a dynamic profile of investigation history. The first two rows describe child C123 who was investigated because of suspected physical abuse and neglect. The investigation was completed within three weeks: physical abuse was not substantiated while neglect was. The last row describes a six-week sexual abuse investigation that was substantiated on February 14, 2002. Various types of statistics can be computed from the data contained in this simple table alone, e.g., total number of families (children) investigated, percentage distribution of types of alleged maltreatment (types of maltreatment substantiated, types of maltreatment unsubstantiated), proportion of families (children) investigated due to alleged physical abuse, time taken to complete a sexual abuse investigation, etc. The number of analytical options increases when linked data from other tables are included.

Table 10: Example of a Maltreatment Investigation Table

Family ID	Child ID	Date Investigated	Maltreatment Type*	Date Substantiated	Level of Substantiation*
F456	C123	03/01/2002	Physical Abuse	24/01/2002	Unsubstantiated
F456	C123	03/01/2002	Neglect	24/01/2002	Substantiated
F789	C245	06/01/2002	Sexual Abuse	14/02/2002	Substantiated

* Note that in actuality, codes, rather than actual labels, are stored in the table, for reasons of efficiency, especially ease of codes maintenance.

Coding

The coding schemes used in a number of older CWISs are the products of evolution over the years. We found that many data fields used coding schemes that included overlapping categories that made it impossible to map codes onto a common scheme. The recommended common data fields (C2) should be dedicated fields that only include the recommended information. Jurisdictions needing to include additional information related to a particular field (e.g. sub-types of maltreatment) should only use the dedicated common field if the additional categories can be collapsed into the common category (e.g. sub-types of neglect).

24 While CWISs currently store information in this manner, it is important that the potential of these relational data management systems be fully understood by the end users who generate data requests and are responsible for redesigning information face sheets.

Data Cleaning

During the systems review phase of the project, we suspected that many of the data problems encountered were the results of inadequate data integrity control in application development. The two main types of problems we noted are:

- *Omitted information:* Caused by worker skipping fields, especially where the information is classified as optional.
- *Wrong information:* Caused by out-of-range dates (for example, date of placement later than date of case closing), picking an inappropriate item from a list, or worker just entering something in a mandatory field to proceed in data input mode.

Although we do not have information on the database structures and program code, it is still possible to suggest a number of practices that can help to reduce or even eliminate the kinds of data errors we are aware of. Our recommendations are as follows.

- Reduce the number of optional data fields. This will proportionally reduce the amount of missing data.
- Review the case management model to come up with an application-controlled process (including the use of warning messages/reminders and supervisory notifications) whereby information (especially mandatory information) must be provided within a predefined timeframe if the information is not available initially. This will avoid nonsense data or missing key data.
- Fully enforce data integrity at the database engine level[25], form level, and application level. This will prevent the input of wrong, nonsense or out-of-range data.

We also recommend that the use of "Unknown" category be monitored to avoid overuse. In addition, use of paper forms is a very error-prone practice and must be avoided where possible.

C2: Core Data Fields Required to Derive Indicators

Table 12 and the accompanying list of variables identifies (1) the minimum set of common data fields and the codes within these fields needed to derive the recommended indicators and (2) the supplementary information that would support enhanced analysis of these indicators.

Recidivism

Two key data fields are required the track recidivism rates: (1) maltreatment type and (2) level of substantiation. Because of inconsistencies between jurisdictions in maltreatment typologies and limited availability of substantiation data, the recidivism estimates in this report only track service recidivism (an ambiguous outcome measure since a return for preventive or support services could be a positive outcome).

25 As far as we are aware, all the relational database management systems in use in the provinces/territories have excellent data integrity features.

Maltreatment Type

At a minimum every CWIS should have a field dedicated[26] to recording what types of maltreatment were investigated. Investigated maltreatment should be recorded for every new incident of suspected maltreatment on already open cases. This would allow for a more accurate measure of recidivism that does not require that a case be closed before a new incident can be registered on a CWIS. The following maltreatment typology is recommended:

a) Physical Abuse,
b) Sexual Abuse,
c) Neglect,
d) Exposure to Domestic Violence,
e) Emotional Maltreatment,
f) No Maltreatment Investigated.

It is suggested that jurisdictions consider a more detailed typology based on the CIS typology:

Table 11: CIS Maltreatment Typology

CIS Maltreatment Categories	
Physical Abuse	**Neglect**
Shaken Baby Syndrome	Failure to Supervise/Protect (Physical)
Inappropriate Punishment	Failure to Supervise/Protect (Sexual)
Other Physical Abuse	Physical Neglect
Sexual Abuse	Medical Neglect
Intercourse/Oral Sex	Failure to Provide Treatment
Attempted Intercourse	Permitting Maladaptive/Criminal Behaviour
Touching/Fondling Genitals	Abandonment
Exposure of Genitals	**Educational Neglect**
Exploitation: Pornography/Prostitution	Emotional Maltreatment
Sexual Harassment	Emotional Abuse
Voyeurism	Non-organic Failure to Thrive
Exposure to Spousal Violence	Emotional Neglect

Trocmé, MacLaurin, Fallon, et.al. (2001) *The Canadian Incidence Study of Reported Child Abuse and Neglect (CIS): Final Report*, Ottawa, Ontario: Minister of Public Works and Government Services Canada.

Substantiation Maltreatment

A substantiation code should be assigned to each maltreatment incident documented by provincial and territorial CWISs. Substantiation typologies vary across Canada. At a minimum it is critical to be able to identify substantiated or confirmed cases. We recommend that provinces and territories adopt the substantiation typology used by the CIS:

26 Some CWISs do not have a dedicated field for tracking investigated maltreatment. When combined with other reasons for investigation, maltreatment type may be masked by other reasons for investigation (e.g. parent substance abuse).

a) Substantiated,
b) Suspected,
c) Unsubstantiated,
d) False.

Injury

For every recorded incident of investigated maltreatment the presence or absence of injury due to maltreatment should be noted. At a minimum this should include the following injury severity categories:

a) No injury,
b) Moderate,
c) Severe (medical attention required),
d) Hospitalization,
e) Death.

Although injuries are relatively rare, given the critical importance of protecting children from life-threatening maltreatment, we suggest that jurisdictions also consider documenting type of injury (head and neck trauma; broken bones; burns; bruises, cuts and scrapes; STDs; other health conditions).

For children receiving child welfare services it would also be important to track all severe injuries. Severe injuries to children in care are usually documented in case files, but not tracked by information systems. For this purpose we suggest that all jurisdictions consider tracking intentionality (abuse; neglect; accidental; self-inflicted).

Education

Grade level should be documented for every school-aged child at case opening, annually updated and upon exit from care and at case closing. In addition to grade level, it would be useful to track use of special education services, an important marker of educational difficulties. It should be noted, however, that this should not be included as an outcome measure, since provision of needed services is likely to be a positive outcome for many children with under-diagnosed learning needs.

Child Behaviour

Measures of emotional and behavioural functioning are not commonly used in child welfare settings. These measures should be developed in all jurisdictions. These could take a number of forms, ranging from scales being used in risk assessment instruments to clinical assessment tools that may be in use in different jurisdictions. If clinical assessment tools are not used we suggest that consideration be given to using the new NLSCY based Looking After Children measures being developed by Dr. Flynn (University of Ottawa) with the Child Welfare League of Canada.

Placement Rate

Calculation of placement rates requires sufficient detail and consistency in the type of placement categories used to differentiate between different types of placement events. The inclusion of independent living or YOA placements, for example, in calculating placement rates may vary depending on the service question that is being assessed. We recommend that the following categories be used across all CWISs (if more categories are used they should be mapped onto the suggested common categories):

a) foster care;
b) group home;
c) residential treatment;
d) adoption probation;
e) extended family care (kinship care);
f) YOA facility;
g) supervised independent living;
h) AWOL (runaway/missing youth).

Moves in Care

Careful attention should be given to distinguishing between placement changes and temporary placement changes such as extended home visits, respite care and summer camps. While this type of temporary change may register on some CWIS for administrative reasons, they should not be counted as placement changes.

The risk in using placement rates and moves in care as outcome measures is that placement avoidance may become an end in itself that could lead to children being left in inappropriate environments. The use of multiple indicators (e.g. recidivism and child education) is designed to prevent this type of narrowing of focus. Analysis of placement trends and moves in care would be significantly enhanced by also tracking placement purpose (emergency; assessment; respite care; intervention/treatment; permanent), placement-matching considerations (e.g.: sibling group; ethno-cultural; close to home), and reasons for moving/discharge (administrative; child died; insufficient progress; placement breakdown; placement goals achieved; moved to permanent placement).

Time to Permanence

Time to permanence can be tracked either in terms of placement permanence or in terms of permanence of legal status. Both indicators track important decision-making and planning processes that should be tracked. Given that most statutes set time limits for determining permanent legal status we recommend that at a minimum all jurisdictions track time to arriving at a final determination of the child's legal status. The recommended legal status field includes:

a) no court involvement,
b) apprehension,
c) supervision order,
d) temporary wardship,
e) permanent wardship.

Table 12: Recommended common data fields for tracking client outcomes

Domain	Indicator	Required Fields	Suggested Codes	Supplemental Information	Notes
Safety	**Recidivism**	Maltreatment Type	Physical Abuse; Sexual Abuse; Neglect; Exposure to Spousal Violence; Emotional Maltreatment; Other	Maltreatment Subtypes (See CIS Maltreatment Types in Table11)	Multiple forms of maltreatment can be documented by using relational data tables. If this option is used an additional as primary or secondary will need to be added.
		Substantiation	Substantiated/ Unsubstantiated	Substantiated; Suspected; Unsubstantiated; False (Unsubstantiated, Intentionally False Allegation)	
	Injury	Severity of Injury	No Injury; Moderate; Severe (Medical Attention Required), Hospitalization; Death	Intentionality: Abuse; Neglect; Accidental; Self-inflicted	Presence/absence of injury should be documented for every maltreatment investigation and used in analysing recidivism rates (e.g. rate of recidivism causing severe injuries). Severe injuries (inflicted or accidental) should also be documented for children in care.
				Type of Injury: Head and Neck Trauma; Broken Bones; Burns; Bruises, Cuts and Scrapes; STDs; Other Health Conditions	
Well-being	**Education**	Grade Level	Grade level combined with DOB allows assessment of age-appropriate grade	Use of Special Education Services: Remedial; Behavioural; Gifted	Documented at case opening, annually updated, and updated at case closing and exit from care.
	Child Behaviour	Behavioural Functioning	To be developed: Review risk assessment tools and the LAC/NLSCY scales.		
Permanence	**Placement Rate**	Placement	Parental care, foster care; group home; residential treatment; adoption probation; extended family care (kinship care); YOA facility; supervised independent living; AWOL	Placement Purpose: Emergency; Assessment; Respite Care; Intervention/Treatment; Permanent Placement Matching (yes/no codes, each category a separate field): Sibling Group; Ethno-cultural; Close to Home	Placement and discharge events and dates should be documented for every placement. While discharge data may seem redundant (the subsequent placement marks the discharge) in practice monitoring these as separate events allows for more accurate analysis of placement experiences.
	Moves in Care				
		Discharge	Parental Care/Family Reunification; Extended Family; Adoption; Independent Living; AWOL; Death of Child	Reason for Discharge: Administrative; Child Died; Insufficient Progress; Placement Breakdown; Placement Goals Achieved; Moved to Permanent Placement	
	Time to Permanence	Legal Status	No Court Involvement, Apprehension, Supervision Order, Temporary Wardship, Permanent Wardship		For children not reunified or adopted, permanence can either be measured by using legal status (permanent wardship) or by tracking time to permanent placement (placement's purpose in permanent and child is discharged to independence from that placement). For children who never achieve permanence, use discharge to independence at age of emancipation.
		Placement	(See Placement)	(See Placement Purpose)	
Family and Community Support	**Family Moves**	Address Change	Count of Address Changes	Postal Code	Documented at case opening, annually updated, and updated at case closing.
	Parenting Capacity	Parenting Capacity	To be developed: Review risk assessment tools and the LAC/NLSCY scales		
	Ethno-cultural Placement Matching	Child's Ethno-cultural Origin	Aboriginal Status	Statistics Canada Ethno-racial Codes	
		Substitute Care provider's Ethno-cultural status		Religion	

For children not reunified or adopted, permanence can also be measured by tracking time to permanent placement (placement's purpose is permanent and child is discharged to independence from that placement). For children who never achieve permanence time from placement to discharge to independence at age of emancipation should be tracked.

Family Moves

Every address change should be counted and dated to allow for the calculation of this indicator. We suggest that changes in postal codes would allow for further analyses to determine the extent to which moves represent in or out of neighbourhood moves.

Parenting Capacity

Parenting capacity measures should continue to be developed in all jurisdictions. This could be as simple as risk factor checklists that identify factors that could impede parenting ability (e.g. spousal violence, substance abuse, mental health problems) to more comprehensive assessment tools. If clinical assessment tools are not used we suggest that consideration be given to using the new NLSCY based Looking After Children measures being developed by Dr. Flynn (University of Ottawa) with the Child Welfare League of Canada.

Placement Matching

At a minimum all jurisdictions should systematically track First Nations, Metis and Inuit children. We also recommend that jurisdictions consider using the Statistics Canada ethno-racial codes. The Canadian Incidence Study collapsed these into the following categories:

a) White;
b) First Nations;
c) Metis;
d) Inuit;
e) Chinese;
f) Latin American;
g) Filipino;
h) Korean;
i) Japanese;
j) Arab/West Asian;
k) South Asian;
l) South East Asian;
m) Black.

At a minimum all jurisdictions should systematically track First Nations, Metis and Inuit substitute care providers. As with children, a more detailed classification would allow for finer analyses of placement matching. It should be noted, however, that religion as opposed to ethno-cultural background may be a more relevant placement matching issue for some communities. Beyond Aboriginal children, the question of placement matching may be better determined on a jurisdiction-specific basis.

D: Next Steps

The COCW initiative has been on the Provincial/Territorial Directors of Child Welfare agenda for over seven years. Progress has been incremental, moving from developing a common framework to pilot testing indicators. The COCW project is now at a point where further progress can only be made through making coordinated changes to CWISs.

D1: COCW Implementation Committee

The project team strongly recommends that the Provincial and Territorial Directors propose to their Deputies the establishment of a permanent COCW Implementation Committee to coordinate the implementation of the COCW initiative. The Committee should include Directors and their representatives as well as representatives from First Nations/Aboriginal service providers.

D2: Involve CWIS Technical Staff

The importance of systematically tracking outcomes is well recognized, however, competing priorities, limited resources, and the multi-layered structure of CWISs complicate the task of redesigning information systems. The complexity of CWISs requires that technical staff work be involved at the conceptual design phase to ensure that information systems are designed to meet the information needed of managers and policy makers.

D3: Involve Managers and Front-line Workers

Consideration also needs to be given to concerns that emerge from reporting outcome data: concerns from administrators that inappropriate comparisons will be made between jurisdictions, concerns from front-line staff that their performance will be evaluated using too crude a set of indicators. These concerns should be addressed by including managers and front-line staff in preliminary analyses of the selected indicators.

Tracking Client Outcomes: A Priority for Child Welfare in Canada

Child welfare service providers and policy makers across Canada do not have access to key indicators such as the proportion of youth in care who graduate from high-school, the number of maltreated children who sustain severe injuries, or the rate of maltreatment recidivism. Client outcome tracking systems are required to support outcome based service planning and policy-making. Having access to a broad range of outcome data provides a basis for evaluating the performance of service delivery systems and setting targets for initiatives designed to improve services. A well-coordinated national approach will allow policy makers to learn from the experiences of other jurisdictions using comparable information and standards.

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Appendix: General Considerations

- The unit of analysis is the child. This means that all data, with the exception of address changes, are at the child level, whether the child is served in the home or in care.
- For purposes of this project, a service spell began with an investigation. Therefore, the start date of a service spell is the start date of the investigation. It should also be noted that, as shown later, investigations of new allegations could occur within a service spell.

Cohorts

The project needs data on two separate sets of cases or cohorts. The purposes and case selection criteria for the two cohorts are different. The following describes the characteristics of the two cohorts, and specifies the data files and their contents for each.

Cohort A: Twelve-month Follow-up Cohort

Case Inclusion Criteria

1. All child protection cases closed in the Index Month, January 2000. This includes:
   - All children returned to home of origin when all protection services to the child and the family were terminated in the Index Month; and
   - All children served in the home of origin when all protection services to the child and the family were terminated in the Index Month.
2. All Permanent Wards of the Crown adopted in the Index Month, January 2000.
3. All Permanent Wards of the Crown *under XX years old* whose case was closed for reasons other than adoption in the Index Month, January 2000.

(**Note:** If a child's case is closed more than once in the Index Month, January 2000, then the end date of the service spell refers to the first closure in the Index Month.)

Use of Data

To compute two outcome indicators: Recurrence of Maltreatment, and Injuries/Deaths

Data Coverage

- Data in 12 months period since case closing in the Index Month, January 2000.
- Data collected on *all minor children in the family*, whether they are served in the home or in care.

Data Files

File #	Description	Data Fields
A1	Child-Family reference table for all minor children (under XX years old) in the family as per **case closing date** in the Index Month, January 2000 (Fixed data)	1. Child ID 2. Family ID 3. Case inclusion criterion ID (*1, 2, or 3, as per Case Inclusion description of Cohort A.*)
A2	Characteristics of the child (Fixed data)	1. Child ID 2. Family ID *(Optional but preferred)* 3. Child's DOB *(Date data type in MM/YYYY format)* 4. Child's sex 5. Child's national origin 6. Child's racial origin 7. Child's aboriginal origin 8. Child's religion 9. Date case closed in Index Month
A3	Start of service spell ending in Index Month, January 2000 (Fixed data)	1. Child ID 2. Family ID *(Optional but preferred)* 3. Date case opened for investigation 4. First reason for investigation 5. Second reason for investigation 6. First type of maltreatment found 7. Second type of maltreatment found 8. Type of substantiation found
A4	Re-openings in 12-month period from first date of case closing in Index Month (Events data)	1. Child ID 2. Family ID *(Optional but preferred)* 3. Date case opened for investigation 4. First reason for investigation 5. Second reason for investigation 6. First type of maltreatment found 7. Second type of maltreatment found 8. Type of substantiation found 9. Date case closed
A5	Serious Injuries/deaths during service spell (Events data)	1. Child ID 2. Family ID *(Optional but preferred)* 3. Date of serious injury/death 4. Type (serious injury/death)

Cohort B: Primary Cohort

Case Inclusion Criteria:

1. All child protection cases closed in the Index Month, January 2001. This includes:
    - All children returned to home of origin when all protection services to the child and the family were terminated in the Index Month; and
    - All children served in the home of origin when all protection services to the child and the family were terminated in the Index Month.
2. All Permanent Wards of the Crown adopted in the Index Month, January 2001.
3. All Permanent Wards of the Crown whose case was closed for reasons other than adoption in the Index Month, January 2001.

(**Note:** If a child's case is closed more than once in the Index Month, January 2001, then the end date of the service spell refers to the first closure in the Index Month.)

Use of Data

To compute eight outcome indicators: Recurrence of Maltreatment, Injuries/Deaths, School Grade/Graduation, Placement Rate, Ethno-cultural Placement Matching, Moves in Care, Time to Permanence, and Family Moves.

Data Coverage

- For cases meeting inclusion **criteria #1:**
    - Retrospective data from the service spell that began on the date of the investigation that started the spell, and ended on the date of first case closing in the Index Month, January 2001.
    - Data collected on all minor children in the family, whether they are served in the home or in care.
- For cases meeting **inclusion criteria #2 and #3** (i.e., Permanent Wards of the Crown):
    - Retrospective data from the service spell that began on the date of the investigation that started the spell, and ended on the date of first case closing in the Index Month, January 2001.
    - Data collected on target child only.

Data Files

File #	Description	Data Fields
B1	Child-Family reference table for all minor children (under XX years old) in the family **as per start date of service spell** ending in the Index Month, January 2001 (Fixed data)	1. Child ID 2. Family ID 3. Case inclusion criterion ID (*1, 2, or 3, as per description of Cohort B*)
B2	Characteristics of the child **as per start date of service spell** ending in the Index Month, January 2001 (Fixed data)	1. Child ID 2. Family ID (*Optional but preferred*) 3. Child's DOB *(Date data type in MM/YYYY format)* 4. Child's sex 5. Child's national origin 6. Child's racial origin 7. Child's aboriginal origin 8. Child's religion 9. Date case first closed in January 2001 10. Date of original investigation that marks the start date of the first service spell ending in January 2001 11. First reason for investigation 12. Second reason for investigation 13. First type of maltreatment found 14. Second type of maltreatment found 15. Type of substantiation found 16. New opening/reopening marker
B3	Investigations during service spell (Events data)	1. Child ID 2. Family ID *(Optional but preferred)* 3. Date case was investigated 4. First Reason for investigation 5. Second Reason for investigation 6. First type of maltreatment found 7. Second type of maltreatment found 8. Type of substantiation found
B4	Placements during service spell (Events data)	1. Child ID 2. Family ID (*Optional but preferred*) 3. Placement date 4. Reason for placement 5. Placement type (*Note: Include ALL placements, temporary or otherwise that the child moved into. Discharge to child's home of origin, and adoption/emancipation (in the case of Permanent Ward of the Crown) are counted as a placement. This means that each child taken into care has a minimum of two placements*.) 6. Care provider's national origin 7. Care provider's racial origin 8. Care provider's aboriginal status 9. Care provider's religion
B5	Child's school grade/ Graduation during service spell (Events data)	1. Child ID 2. Family ID (*Optional but preferred*) 3. Date of grade/graduation 4. Grade/Graduation type

(continued on following page)

Data Files *(continued)*

File #	Description	Data Fields
B6	Serious Injuries/deaths during service spell (Events data)	1. Child ID 2. Family ID *(Optional but preferred)* 3. Date of serious injury/death 4. Type (serious injury/death)
B7	Legal authorities during service spell (Events data)	1. Child ID 2. Family ID *(Optional but preferred)* 3. Date of legal authority 4. Name of legal authority
B8	Address changes for child's primary caregiver during service spell (Events data)	1. Family ID 2. Date of address change

Data File Output Features

We need comma-delimited ASCII data files. The following specifies the features common to all data files you output.

- The sequence of data in each file must follow the exact order of the data fields presented above in the Cohorts section. Provide a list of ordered field names and their associated properties (data type, and field length if TEXT) for each data file, but *do not* embed this list in the data file itself.
- The Family ID field in the data files (other than the data files called "Child-Family reference table") is optional. However, we very much prefer that you include it in all data files.
- You have the option of providing the codes or actual descriptions for some of the fields (e.g., Aboriginal Origin, Reason for Investigation, Type of Maltreatment, Reason for Placement, Placement Type, etc.). Please send your codebooks or coding schemes for all the data fields listed above in the Cohorts section, if you have not already done so.
- All dates, *except child's DOB* (see explanation in the next section), have the DATE format of MM/DD/YYYY. If your database handles the DATETIME format only, discuss with Stan Loo first.
- Use double quotes (") to enclose all TEXT data, and all other data that have been converted to the TEXT data type.
- *Do not* output NOTE or MEMO data type. Convert NOTE or MEMO data type to TEXT data type first.
- Use only comma (,) as the delimiter.
- If no data exists for a field, leave it blank. Do not use an ASCII representation for absence of data.
- Name your data files as A1, A2, A3, and so on, to correspond to the file numbering system used above in the Cohorts section.

Special Instructions for Safeguarding Confidentiality

The Federal Government stipulates that all case identifiers (Child ID, Family ID, and Child's DOB) in datasets must be represented in such a way that the original cases cannot be traced.

This new requirement means that you must apply the two following practices in preparing the data files.

1. Strip the day portion from a child's Date of Birth, so that the resulting date format is MM/YYYY. (Note that this special step applies to a child's DOB only. **All other dates will retain the MM/DD/YYYY format.** If your system does not allow you to output MM/YYYY as a DATE data type, then output it as a TEXT data type and use double quotes (") to enclose the value.

2. Represent the original Family IDs and Child IDs differently. How this is best done is up to you to decide. **It is obviously critical that a child's ID and his/her family ID in all data files within a Cohort must be re-represented in an identical fashion, so that links between data files are not destroyed.**

In addition, please consider the two following confidentiality safeguards in transmitting data files:

- If you intend to transmit the data files as email attachment(s), use PKZIP to zip the files with password protection. You will provide me with the password in a separate communication.
- If you prefer to use a courier to get the data files to me, you can store them on a CD or diskettes. Please ensure that you instruct the courier not to leave the package in the mailbox.

If you want to discuss these data retrieval or confidentiality handling requirements, please contact Stan Loo at (905) 737-5406.

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