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Special education and subsidized child care costs for Manitoba children affected by parental alcohol abuse[1]

Pamela Gough and Don Fuchs

The long-term societal cost of parental alcohol misuse on children in Canada, especially the costs of providing care and education for children with Fetal Alcohol Spectrum Disorder (FASD) who are in the child welfare system, are largely unknown. This information sheet summarizes an analysis of the education and subsidized child care costs of children[2] affected by parental alcohol misuse in Manitoba. The analysis presented here supplements a companion information sheet that presents the results of an analysis of health care costs for the same study populations.[3] These information sheets are based on an investigation done by a team led by Don Fuchs and Linda Burnside which looked at the overall costs and utilization of health, education and child care resources for Manitoba children affected by parental alcohol misuse in 2006.[4]

The research team has previously carried out a series of studies [5, 6, 7] on children with disabilities in the care of child and family service agencies in Manitoba, looking particularly at children with FASD, a disabling condition caused by maternal alcohol consumption during pregnancy. These earlier studies showed that one third of the children in Manitoba's provincial child welfare system (called "children in care") had disabilities, many of them related to parental alcohol misuse. Seventeen percent of children in care were affected by diagnosed or suspected FASD. Approximately 34% of children in care with disabilities, which made up 11% of all children in care in Manitoba, had diagnosed FASD. Of the 1,403 children in care with an intellectual disability, 46% had diagnosed FASD.[8]

The objective of this study was to compare 2006 costs for education and subsidized child care for five groups of children in Manitoba, four of which were children affected by parental alcohol misuse, including three groups of children in care and two groups of FASD-affected children. The fifth group was a sample of children for whom parental alcohol misuse had not been identified, and who were not in child welfare care, used as a comparison population.

The study showed that the four groups of children affected by parental alcohol misuse, particularly those affected by FASD, were given more special education funding, had higher education costs, and had lower outcomes on a variety of educational success indicators compared to the general population. For example, they had a lower likelihood of completing a full set of credits in the first year of high school, were more likely to be held back a grade, had lower high school average marks, and had lower graduation rates. Children with FASD who were permanent wards had average per capita subsidized child care costs that were twice those of the general population.

What is known of the effects of FASD on children?

FASD is a serious social and health problem for the child welfare, health and education systems in North America. The term FASD describes a wide range of disorders caused

by women drinking alcohol during pregnancy. These include Fetal Alcohol Syndrome (FAS), Partial FAS, Fetal Alcohol Effects (FAE), Alcohol-Related Neurodevelopmental Disorder (ARND), and Alcohol-Related Birth Defects (ARBD). Characteristics of FASD include growth deficiency, evidence of central nervous system abnormalities that result in intellectual and developmental delay, and changes in the shape of the face. Children with alcohol-related disorders often have cognitive and behavioural difficulties that cause them to have problems in school and society.[9]

How was the current study carried out?

Data sources

Manitoba's provincial Child and Family Services database and the population-based data repository at the Manitoba Centre for Health Policy were used to identify data for five population groups of children for the year 2006, which together totaled 6,324 children.

Of the five child populations studied, the first general category consisted of three groups of children in the care of provincial child welfare agencies, all of whom were affected by parental alcohol misuse. These three groups are collectively called the Children in Care (CIC) category:

a) Children in care with diagnosed FASD who were permanent wards of the crown; n=603 (CIC-FASD-PW);

b) Children without diagnosed FASD who were permanent wards of the crown and in care due to parental alcohol abuse; n=51 (CIC-PA-PW);

c) Children without diagnosed FASD who were not permanent wards of the crown but in care for some period in 2006 due to parental alcohol abuse; n=587 (CIC-PA); [10]

The second general category consisted of one group of children who were not in provincial child welfare care in 2006 but were affected by parental alcohol misuse and diagnosed with FASD by the Clinic for Alcohol and Drug Exposed Children (CADEC) in Winnipeg:

e) Children with diagnosed FASD; n=119 (FASD-CADEC);

The third category consisted of one group that was a sample of the general child population:

f) Children in the general population who were not identified as being affected by parental misuse of alcohol and who did not have an open child welfare file; n=4,964 (general population).

The researchers accessed data for educational enrolment, assessment, and subsidized child care costs for these child populations from the Manitoba Centre for Health Policy database and the Manitoba Department of Education.

Education Data

The rates for educational funding in the public education system in Manitoba are standardized. The basic rate of funding (Level 1) is $1866.00 per year. There are two levels of additional supplementary funding given on a case-by-case basis for special education needs:

- Level 2 funding support ($8780.00 per year in addition to Level 1) is available for children who are severely multi-handicapped, severely psychotic, deaf or hard of hearing, severely visually impaired, very severely emotionally or behaviourally disordered, or who have received a diagnosis of moderate Autism Spectrum Disorder.
- Level 3 funding support ($19,530.00 per year in addition to Level 1) is available for children who are profoundly multi-handicapped, profoundly deaf, blind, profoundly emotionally or behaviourally disordered, or who have received a diagnosis of severe to profound Autism Spectrum Disorder.

Table 1: Special education enrolment and costs of education funding (2006)

	Number of children enrolled	Children funded at Level 2	Children funded at Level 3	Total costs of education funding	Average costs of education	Incremental education costs compared to general population
	n	%	%	$	$	$
CIC-FASD-PW	450	36.2*	14.0*	3,304,514	7,343	5,166
CIC-PA	311	3.2(1)	(s)	702,458	2,259	82
CIC-PA-PW	35	17.1*(1)	0	124,294	3,551	1,374
FASD-CADEC	79	38.0*	7.6*	460,818	5,833	3,656
General population	3,407	1.9	1.0	7,418,198	2,177	–

(s) The estimate is suppressed due to a small count between one and five observations
(1) Statistically significant difference with respect to the CIC-FASD-PW group

Table 2: Special education enrolment percentages and education success indicators (%)

	Level 2 2006 (A)	Level 2 2005/6 (B)	Level 3 2006 (C)	Level 3 2005/6 (D)	Age 16+ still enrolled in school in 2006	Graduation rate 2005 (E)	Graduation rate 2006 (F)	8+ credits in Grade 9 (G)
CIC-FASD-PW	36.2*	38.4*	14.0*	13.6*	51.4*	26.5*	18.5*	32.4*
CIC-PA	3.2(1)	3.1(1)	(s)	(s)	67.7	0	0	(s)
CIC-PA-PW	17.1*(1)	15.8*(1)	0	0	(s)	0	0	(s)
FASD-CADEC	38.0*	39.5*	7.6*	7.0*	28.0*(1)	(s)	(s)	(s)
General population	1.9	2.0	1.0	1.0	64.9	45.9	56.7	69.0

Columns:
(A) Percentage of children >5, still in school, and receiving Level 2 funding in 2006 academic year
(B) Percentage of children >5, still in school, and receiving Level 2 funding in 2005 or 2006 academic year
(C) Percentage of children >5, still in school, and receiving Level 3 funding in 2006 academic year
(D) Percentage of children >5, still in school, and receiving Level 3 funding in 2005 or 2006 academic year
(E) Percentage of children who graduated by the end of the 2005 academic year, out of all the youth who were 16+ years old (as of December 31 2005) and enrolled in 2005
(F) Percentage of children who graduated by the end of the 2006 academic year, out of all the youth who were 16+ years old (as of December 31 2006) and enrolled in 2006
(G) Percentage of children who were enrolled in Grade 9 who received 8+ credits in the first year of Grade 9
* Statistically significant difference with respect to the general population group
(1) Statistically significant difference with respect to the CIC-FASD-PW group
(s) The estimate is suppressed due to a small count between one and five observations

Table 3: Average marks for sample group members who were in high school between 2000 and 2006

	Average marks 2000-2006	Standard exam marks: Grade 12 combined Mathematics and Language Arts in 2006
CIC-FASD-PW	63.4%*	52.8%
CIC-PA	55.7%*	–
CIC-PA-PW	49.7%*	–
FASD-CADEC	59.5%*	50.0%
General population	72.7%	62.0%

* Statistically significant difference with respect to the general population

What were the key results for education?

1) Children affected by FASD incurred disproportionately high education costs

The average cost of education funding for the CIC-FASD-PW children was 3.4 times the cost for children in the general population group. For the FASD-CADEC children, the cost was 2.7 times higher than the general population (Table 1). The four groups of children affected by parental alcohol misuse made up 20.4% of the total number of children in the study who were enrolled in school, however their aggregated costs made up 38.2% of the total education costs of the entire population of children in the study.

2) Children affected by FASD accessed special education funding at higher levels than the general population

The two groups of FASD-affected children received Levels 2 or 3 of special education funding at much higher rates than those of the CIC-PA, CIC-PA-PW, or the general population groups (Table 2).

3) Graduation rates of provincial wards affected by FASD were much lower than the general population

The percentage of permanent wards with FASD still enrolled in school after age 16 was lower than the percentage for the general population but higher than those affected by FASD who were not permanent wards (Table 2). The graduation rates and number of credits in grade nine was lower for the CIC-FASD-PW group compared to the general population.

4) Children affected by alcohol had lower marks and repeated grades more frequently than the general population

The four groups affected by parental alcohol misuse had lower marks over a variety of indicators compared to the general population, and were also held back a grade at much higher rates.

Average high school marks for the sample group members who were in high school between the academic years of 2000 to 2006 were significantly

lower for the four groups affected by parental alcohol compared to the general population (Table 3).

A very small number of the two FASD-affected groups were recorded to have written the standard Grade 12 examinations (combined Mathematics and Language Arts). Average marks for those of the two FASD groups were more than ten percent lower than the general population (Table 3), although sample counts in the two FASD-affected groups were very low.

What were the key results for subsidized child care?

1) Subsidized child care costs for permanent wards with FASD were twice that of the general population

In Manitoba, government-subsidized child care is available for children in the care of child welfare agencies as well as families with special needs, such as those needing medical care or those with low family incomes.

When the five population groups were compared, the two CIC groups with the greatest numbers of preschoolers and young children (CIC-FASD-PW and CIC-PA) showed the most frequent use of subsidized child care. The difference between the use of subsidized child care between the CIC-FASD-PW group and the general population was statistically significant.

The average cost of subsidized child care for a child in the CIC-FASD-PW group was $467 yearly, compared to $218 for a child in the general population group. Although the CIC-FASD-PW group made up 10.2% of children accessing subsidized child care, its aggregated costs made up 19.5% of the total costs of subsidized child care for the five populations in the study.

Summary

The research showed that the children affected by parental alcohol misuse:

- had a higher chance of receiving special education funding;
- had higher education costs, particularly if affected by FASD;
- had lower high school marks and a lower likelihood of completing a full set of credits in the first year of high school;
- had lower high school graduation rates;
- were less likely to write standard provincial examinations in language or mathematics;
- had a higher chance of being held back a grade in school; and
- had a lower likelihood of being enrolled in school after age 15 if affected by FASD.

In addition, the study showed that children with FASD who were permanent wards had average per capita subsidized child care costs that were twice those of the general population.

References

1 This information sheet is based on the report: Fuchs, D., Burnside, L., De Riviere, L., Brownell, M., Marchenski, S., Mudry, A., & Dahl, M. (2009). *The economic impact of children in care with FASD and parental alcohol issues. Phase II: Costs and service utilization of health care, special education, and child care*. Winnipeg, Manitoba: Faculty of Social Work, University of Manitoba. Available at: http://www.cecw-cepb.ca/sites/default/files/publications/en/FASD_Economic_Impact_Phase2.pdf

2 For the sake of brevity, this document uses the term "children" to refer to children and youth.

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9 Koren, G., & Nulman, I. (2002). *The motherisk guide to diagnosing Fetal Alcohol Spectrum Disorder.* Toronto, ON: The Hospital for Sick Children.

10 It should be noted that the CIC-PA group children were generally younger than the children in the other groups, with a mean age of 7.2 years.

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About the authors: ***Pamela Gough*** is principal writer and owner of Penache Communications, based in Toronto, Ontario. ***Don Fuchs*** is a full professor in the Faculty of Social Work, University of Manitoba. He has conducted extensive research on the role of social support networks in strengthening family parenting abilities and preventing child maltreatment.

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