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ALL OUR FAMILIES STUDY  
WOMEN'S WELLNESS DESCRIPTIVE REPORT:  
12-14 YEAR FOLLOW-UP

EXECUTIVE SUMMARY

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## TECHNICAL SUMMARY

### HISTORY OF THE ALL OUR FAMILIES STUDY

The All Our Families (AOF) study began as the All Our Babies (AOB) study in 2008. It is a prospective cohort study of approximately 3,200 mothers and their children in Calgary, Alberta. AOF was initially designed to examine maternal and infant outcomes during the perinatal period and to identify barriers and facilitators to accessing health care services. Mothers who agreed to participate were asked to complete three surveys: the first during the second trimester (<25 weeks gestation), the second during the third trimester (34-36 weeks gestation), and the third at four months postpartum. Participants were also asked to provide consent to the research team to access their obstetrical and birth records (McDonald et al., 2013; Tough et al., 2017).

Compared with parents with young children in Calgary, Alberta and the broader Canadian context during a similar timeframe, the sociodemographic attributes of AOF participants at enrollment resembled the population of urban families who had children at the time in terms of age and education (Tough et al., 2017). However, a higher percentage of participants within the AOF cohort reported annual household earnings exceeding \$60,000 (82%), in contrast to their counterparts in Calgary (65%), Alberta (61%), and the nationwide figure (56%) at the start of the study. Additionally, the proportion of AOF participants who were married (83%) was elevated when compared with parenting females in Calgary (73%), Alberta (70%), and across Canada (60%).

Subsequent follow-up surveys were developed and administered to consenting and eligible participants to examine child development and parenting outcomes at 1, 2, 3, 5, and 8 years postnatally. Development of the next study follow-up survey began in August 2018 but was delayed due to the COVID-19 pandemic. Data collection for three maternal and youth COVID-19 Impact Surveys occurred between May 2020 through to January 2022. Survey design for the 12–14-year follow-up resumed in early 2023 and was completed by Spring of 2023. Data collection occurred at the beginning of 2023, concluding in July of 2023 with a 65% response rate to the women's survey. Participants were also asked to consent to having their youth participate in a youth survey, and among those who consented, 93% of youth completed the



questionnaire. Additional information and previous reports can be found at the AOF website: <https://ucalgary.ca/allourfamilies>.

To recognize the developmental stage of life, this report will use the word 'women' in place of 'mother' or 'maternal' where appropriate to recognize the individuality of our All Our Families participants. We acknowledge that not all participants are mothers, and not all birthing parents identify as women. This language was selected to align with the existing literature and is not intended to exclude or diminish the experiences of individuals with diverse gender identities.

**This report presents a summary of the data collected from AOF women in the study when their youth were 12-14 years of age.** Descriptive statistics are provided for women based on demographics, community and peer connections, household dynamics, lifestyle, well-being, and development. Bivariate analyses also describe the relationships between various women's demographics, social stressors, and health outcomes.

## OBJECTIVES

The objectives of this report are as follows:

- 1) To describe the AOF women's cohort with respect to demographics, social connections, mental and physical health, parenting, and lifestyle factors between 12 and 14 years post-delivery.
- 2) To examine bivariate associations between sample sociodemographic variables and women's health and youth outcomes.

## METHODS

### DATA COLLECTION

Between May 2008 and May 2011, a cohort of 3,387 pregnant individuals, ranging in age from 19 to 47, were recruited from a pool of eligible participants (n=4,003) in Calgary, Canada. To qualify for the study, participants needed to be under 25 weeks pregnant at the time they joined, at least 18 years of age, receiving prenatal care within Calgary, Canada, and were capable of filling out questionnaires in English (McDonald et al., 2013; Tough et al., 2017). Current AOF participants were eligible for this follow-up study if they (1) agreed to additional research, (2) were currently active in the study, and (3) had an email address on file. All AOF surveys have been circulated to content experts, subspecialists, and clinical experts and pilot tested prior to distribution. Starting January 16<sup>th</sup>, 2023, the study invited women and their youth to participate in the 12–14-year follow-up through a personalized online link to University of Alberta's REDCap survey platform. Participants were sent email reminders and received phone calls from study research assistants to complete the questionnaire and were regularly reminded to provide consent for their child to participate in their own youth survey. Participants received between \$15-25 gift cards for completing the survey, as well as an opportunity to win an Apple iPad if they completed early. After 24.5 weeks of active data collection, the 12–14-year surveys closed on July 7<sup>th</sup>, 2023.

Of the 2362 participants eligible to participate in this survey, 1529 responded to the survey (response = 65%).



Data was exported from REDCap on July 7<sup>th</sup>, 2023, into IBM SPSS, where data cleaning, management, and coding began shortly afterwards by the research team.

## ANALYSIS

Data management and statistical analyses were performed using IBM SPSS. Descriptive statistics were calculated for all quantitative variables collected. Categorical variables are presented as proportions, and continuous variables are presented as sample means with standard deviation, minimum, and maximum values. Bivariate associations between categorical variables were conducted using Chi-square crosstabulations. Associations between categorical and continuous variables were conducted using t-tests. Continuous variable associations were conducted as correlations with Pearson's correlation coefficient. Statistical significance for all relevant analyses was set at  $p < 0.05$ .

## ETHICS APPROVAL

This original study was approved by the Child Health Research Office and the Conjoint Health Research Ethics Board of the Cumming School of Medicine, University of Calgary (Ethics ID 20821 and 22821). Participants provided consent at the time of recruitment to participate in the initial study and to be contacted for additional future research (REB13-0868).

## HIGHLIGHTED RESULTS

### DEMOGRAPHICS

- The average age for women at this analysis was 44.0 (SD 4.3) years. Most identified as White/Caucasian (80.3%), were married or partnered (90.9%), heterosexual (84.3%), had a household income of \$125,000 or greater (62.2%), and had graduated from a post-secondary institution (59.7%).
- One in 10 participants reported some food insecurity (11.4%). Almost 90% of participants indicated that they had the financial resources needed to meet their family's needs, with 49.2% reporting they always had the necessary resources. When asked about worries concerning having enough money for important family matters, 28.6% of women reported they rarely or never worry while 9.7% were always worried.
- Over 75% of women were employed and, of those, 73.5% worked 30 hours or more a week. Most commonly, participants reported employment in the health and social sector (26.7%), professional services (23.0%), or educational services (19.7%). Over one third (41.5%) of women worked entirely on-site, while 13.7% and 15.3% reported working mostly or entirely remotely, respectively. A hybrid model combining equally remote and on-site activities was reported by



15.8% of respondents. Over 90% of women were satisfied (48.9%) or very satisfied (39.4%) with their current work arrangements.

- The majority of women indicated that they lived in a two-parent family with both biological parents of their youth (84.5%). Fewer lived in a two-parent family with one biological and one non-biological parent (4.1%), a single-parent family (9.4%), or other arrangements (2.0%). For the 15.4% not living in a two biological parent home of their youth, a large proportion (68.1%) reported that their youth lived with them more than 60% of the time in the previous 12 months. Fewer (3.1%) indicated that their youth lived with them less than 40% of the time or not at all.
- The presence of household pets was common, with 71.3% of the cohort having pets.

## MENTAL HEALTH AND LIFE SATISFACTION

- Overall, most (78.1%) women reported high life satisfaction in domains of work, family, housing, partner relationships, and social activities. The majority (75.5%) expressed contentment in their friendships and relationships and 74.0% reported feeling quite or extremely happy overall.
- The mean score for flourishing, defined as overall well-being and positive mental health, was high (87.76, SD 15.22, range of 21.00-120.00) suggesting that most participants were flourishing, felt supported and were satisfied in various domains of their lives.
- Participants reported a high mean spiritual well-being score of 31.8 (SD 4.8, range of 8.00-40.00) on the adapted version of Fisher's Spiritual Well-being (SWB) (Freeman, G., 2020; Michaelson et al., 2016). This indicates that many women experienced sense of purpose, values, and connectedness to the environment and/or a higher spiritual power.
- In terms of mental health, approximately one in three women (29.9%) exhibited symptoms of depression and one in four (24.8%) displayed elevated symptoms of anxiety. One in four (25.5%) had high scores on the perceived stress measure.
- Within the past year, when asked about stressful life events, 37.9% reported a close friend/family member had a serious accident/illness, 29.5% reported having a close friend/relative die, and 5.1% reported being separated/divorced. Emotionally cruel treatment by a partner was reported by 13.4% of respondents. the Stressful Life Events Questionnaire (SLEQ):1.32, SD 1.28 with a range of 0.00-8.00 (Bräuner et al., 2021).
- Discrimination, defined as treating people differently, negatively or adversely because of their race, age, religion, sex, etc., was experienced by 13.5% of respondents. Among these, a substantial proportion of participants reported experiencing discrimination based on "Sex or gender expression" (40.6%), "Race, ethnic origin, or religion" (34.2%), "Physical appearance" (23.3%), and "Age" (20.8%). Further, participants reported experiencing discrimination based on "Physical or mental disability" (11.4%) and "Sexual orientation" (4.0%). Some women are experiencing discrimination in more than one domain.
- Most women with household incomes above \$125,000 reported high flourishing scores (89.6%) and low symptoms of stress (79.2%), depression symptoms (74.9%), and anxiety symptoms (79.1). Among respondents with household incomes below \$125,000, 76.2% reported high



flourishing scores and low symptoms of stress, depression, and anxiety were reported among 68.2%, 62.6%, and 69.2% participants, respectively.

- Increased time pressure was associated with increased symptoms of depression and anxiety.
- Women's scores on flourishing, anxiety symptoms, depression symptoms and chronic pain were not associated with their youth's scores on flourishing, anxiety symptoms, depression symptoms and chronic pain.

## LIFESTYLE AND PHYSICAL HEALTH

- Most women were meeting Canadian physical health guidelines; this included sleeping between 7 to 9 hours on a regular basis (68.0%), having no more than 3 hours of recreational screen time per day (64.9%), and obtaining at least 150 minutes of moderate- to vigorous-intensity physical activity each week (mean 3.47 hours per week, SD 3.71)(Canadian 24-Hour Movement Guidelines, 2021). Moreover, most participants (89.2%) report meeting Canadian guidelines for receiving Pap tests for cervical cancer screening every 3 years or less.
- The majority (64%) reported some alcohol consumption, but, overall, women collectively adhered to Canadian low-risk alcohol drinking guidelines (mean average 2.13 standard drinks per week, SD 3.68, range 0.00-35.00) (Canadian Centre on Substance Use and Addiction, 2018). Less than 5% reported tobacco or nicotine use (4.9%) and cannabis usage was reported by 12.6% of respondents.
- The most common physical diagnoses reported were asthma (14.4%), thyroid disorders (11.5%), and arthritis (11.1%).
- Over half (62.0%) of women reported some level of loss of bladder control and urinary leakage (urinary incontinence). Of these, 75.2% indicated some interference in their everyday life.
- The majority of women (77.8%) identified as premenopausal and still experienced menstrual cycles.
- Over half (62.8%) of respondents reported experiencing aches and pains at least once a month for three consecutive months. Most aches and pains were felt in muscles and joints (67.2%), the head (36.1%), legs (20.7%), or stomach (17.4%).
- Regarding leisure activity participation, 86.7% of respondents engaged in 1-15 hours of leisure activities per week for their own pleasure, including hobbies and other activities. A small percentage (5.7%) of women indicated 0 hours of leisure activities per week.
- Women's recreational screen time approximated 3 hours per day with a range of up to 15 hours in an average week. Overall, the majority of women reported some involvement in their youth's digital activities. In terms of parental awareness and management of youth screen time, 58.6% of parents were aware of their youths' media activities most of the time and 14.0% were always aware.



## IN THE COMMUNITY

- Within their communities, the majority of women reported a strong (25.9%) or somewhat strong (50.1%) sense of belonging within their local community and perceptions of neighbourhood cohesion were high among the sample.
- Scores on neighbourhood cohesion based on the National Longitudinal Survey of Children and Youth (NLSCY) Perceived Neighbourhood Cohesion Scale (10.57, SD 2.96, range of 0.00-15.00) (Kingsbury et al., 2015) were high. Additionally, most indicated high or strong agreement for questions related to neighbourly assistance (92.9%), the presence of adult role models (88.9%), trust in neighbours' vigilance during absences (86.1%), and the expectation of adults safeguarding children (83.6%) within their communities.
- The vast majority (81.4%) of respondents reported moderate or high social support in terms of emotional/information support, tangible support, affectionate support, and positive social interactions.

## CONCLUSION

Through the 12–14-year follow-up questionnaire, women reported on their relationships with their youth and partners, and other family dynamics. Physical and mental well-being, life satisfaction, and connectedness generally showed positive outcomes among women in the cohort. As well, potential relationships between income, time pressure, and mental health issues were identified. Reports from women in the cohort suggest that resources are needed for mental health, as experienced by a notable prevalence of the cohort. The next wave of questionnaires, at the 15–17-year follow-up, will seek to further investigate mental well-being and factors that impact flourishing.

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