

Preconception health of women with physical, sensory, and intellectual and developmental disabilities in Ontario

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Disclosure Statement

- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

Disability in reproductive-aged women

- Approximately 1 in 10 reproductive-aged women in Canada has a disability (Statistics Canada, 2016)
- Childbearing in this population was historically limited by institutionalization, involuntary sterilization, and concerns about use of medications in pregnancy (Silver, 2003)
- Major shifts in social context and medical practice in the last 30 years have led to increasing opportunities for childbearing among women with disabilities (United Nations, 2006)

Preconception health and disability

- We know little about the preconception health of women with disabilities, particularly in Canada
- American studies have found that women with disabilities report higher rates of mental distress and chronic medical conditions, such as asthma, diabetes, and obesity (Mitra et al., 2016; Kim et al., 2013)
- Few preconception health interventions for women with disabilities exist; most focus on increasing contraception knowledge or use among women with IDD (Horner-Johnson et al., 2019)

Objectives

Using population-based data from Ontario, Canada, our objectives were to:

1. **Describe** the preconception health characteristics of women with physical, sensory, and intellectual and developmental disabilities, and
2. **Compare** these characteristics to women without disabilities.

Study design and data sources

- **Study design:**
Population-based
cross-sectional study,
2017/18
- **Data sources:** ICES
health administrative
data



Study cohort

- Adapted algorithms previously validated to identify, in health administrative data, permanent conditions that are likely to result in activity limitations and participation restrictions (Darney et al., 2017; Lin et al., 2013)
 - Recorded in ≥ 2 physician visits or ≥ 1 hospitalization or emergency department visit since database inception
- 15- to 44-year-old women with physical, sensory, intellectual and developmental, or multiple disabilities versus women without these disabilities
- **Excluded:** Women with a prior hysterectomy

Preconception characteristics

Characteristic	Measurement
Age	Age (Mean, age ranges)
Social determinants	Neighbourhood income quintile, material deprivation, residential instability, rurality
Physical health status	Stable and unstable chronic medical conditions, diabetes, hypertension, asthma
Medication use	Use of potentially teratogenic medications
Psychosocial well-being	Psychotic mental illness, non-psychotic mental illness, self-harm, substance use disorders, history of intentional injury
Access to care	Continuity of primary care

Statistical analyses

- Described the preconception health characteristics of women with and without disabilities using frequencies and percentages
- Differences between each group compared to women without disabilities were measured using standardized differences (Austin, 2009)
 - Standardized differences > 0.10 are clinically meaningful (**bold** in results tables)

Results: Age and social determinants

Outcome	No disability N=2,307,822	Physical N=253,184	Sensory N=93,170	IDD N=8,986	Multiple N=29,868
Age (Mean)	29.3	31.1	29.5	25.2	30.1
Rural residence	3.6%	5.3%	5.8%	4.9%	4.9%
Neighbourhood income quintile (Q1 and Q2)	41.0%	40.8%	39.8%	47.1%	43.6%
Material deprivation quintile (Q4 and Q5)	55.8%	57.5%	55.8%	63.8%	61.0%

Results: Physical health, medication use, and access to care

Outcome	No disability N=2,307,822	Physical N=253,184	Sensory N=93,170	IDD N=8,986	Multiple N=29,868
Diabetes	1.9%	3.9%	4.4%	5.2%	8.4%
Hypertension	2.4%	5.0%	4.2%	2.8%	7.6%
Asthma	16.1%	25.5%	24.1%	24.0%	32.0%
Teratogenic medication use	8.2%	20.0%	12.8%	18.0%	34.1%
< 3 primary care visits in last 2 years	34.0%	22.7%	24.7%	33.2%	21.1%
High (> 0.80)	27.2%	33.3%	32.0%	31.7%	36.6%

Results: Mental health and injury/assault

Outcome	No disability N=2,307,822	Physical N=253,184	Sensory N=93,170	IDD N=8,986	Multiple N=29,868
Psychotic mental illness	0.9%	1.9%	1.4%	7.4%	3.8%
Non-psychotic mental illness	12.3%	20.4%	17.3%	27.8%	24.1%
Substance use disorder	0.9%	2.2%	1.1%	2.8%	2.0%
Self-harm	0.4%	0.7%	0.5%	2.8%	1.3%
Lifetime history of intentional injury	2.2%	5.1%	3.1%	6.8%	6.2%

Summary of findings

- In Ontario, women with disabilities have poorer preconception health compared to women without disabilities
 - Differences particularly pronounced with regard to chronic disease, mental health, use of potentially teratogenic medications, and lifetime history of intentional injury/assault.
 - Women with intellectual and developmental disabilities have the greatest preconception health disparities
 - Also the youngest and most socioeconomically marginalized group

Interpretation of findings

- Lack of interventions specifically for women with disabilities
- Barriers to preconception care
 - Individual
 - Health setting/system: accessibility (including communication), transportation
 - Provider-level: lack of disability training, less likely to provide contraceptive counselling (Taouk et al., 2018)

Limitations

- Administrative data identify the presence of diagnoses, which may not be associated with activity limitations and participation restrictions
- Administrative data in Ontario do not include/capture race/ethnicity, marital status/social support, and other social determinants of health
- Injury/assault rates likely higher than indicated in administrative data

Implications and conclusions

- First population-based study on the preconception health characteristics of women with disabilities in Canada
- These data may be used to inform the development of supports/interventions to improve preconception health for women with disabilities
 - Disability broadly and disability type specific considerations and interventions (e.g., communication and learning challenges for women with IDD)
 - Future qualitative research to better understand preconception health, including what may contribute to poor preconception health (barriers) for women with disabilities, from the perspective of both women with disabilities and health care providers

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Thank you

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