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Feeding in the Early Years

*A snapshot of findings about **infant food insecurity** in Nova Scotia*

RESEARCH NOVA SCOTIA

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Introduction

Research suggests that food insecurity affects households with infants through its relationship to infant feeding practices. No studies have developed and tested potential indicators of how household income constraints create infant food insecurity.

In this study we define **infant food insecurity** as infants' (0-24 months) vulnerability with respect to food access, sub-optimal quality, and inadequate quantity due to household financial constraints.

Methods

We used **sequential mixed-methods** to examine infant food insecurity in Nova Scotia between 2019 and early 2022.
Phase 1: 25 interviews with caregivers of infants (0-24 months) living in food insecure households between October 2019 and November 2020
Phase 2: On-line self administered survey with 1225 Nova Scotia caregivers with infants (0-24 months) in early 2022.

Aim

We aimed to explore the **multidimensional nature of infant food insecurity** and its relationship to household food insecurity in a sample of households with infants from Nova Scotia, Canada.

Phase 1: Caregivers described how financial constraints shaped their infant feeding...



"We wanted to breastfeed — a big part is the cost... money just isn't where it's at. And we thought about the extra couple hundred dollars a month of formula, and we were like, we don't really have that — so we'll do what we can with what our body is giving us."
— Mandy

"Luckily my sister had some [formula] leftover... But once those run out, I'm like, I don't know if I'm going to be able to buy more because they're like $50 for just 6 bottles."
— Erica

"I do water down her formula — only by an ounce — because I don't want to affect the baby. But it is very expensive and it's hard to keep up on it. So, I do have to water it down to try to keep up on formula and have enough for her to eat."
— Helen

"We look out for the kids first before we get fed. They're our priority. And with us, we have a cup of coffee and something... she's been actually on our food since she was 4 months. So that was a big save on us... we usually go to the food bank every 3 weeks, and without my husband knowing it, I'll sneak up to mom's and feed her there."
— Adele

"He will never [go hungry]... I will beg, borrow and steal."
— Amelia

"There's times we've had to do something other than breastfeeding. And it's been challenging. Formula's expensive. I don't know how people do it if they're solely formula feeding."
— Elsie

We found ....

Infant Food Insecurity Dimensions Due to Financial Constraints

Psychological Dimension
Caregiver feelings of worry about breastfeeding or formula feeding, and child's nutrition. Uncertainty about the sufficiency of infant's food supply (across all modes of feeding)

Food Quality Dimension
Infant fed unsuitable infant foods (according to infant feeding recommendations)

Food Quantity Dimension
Breastfeeding mother and infants have insufficient food intake. Depletion of infant specific foods.

Social Dimensions
Going without. Inability to afford infant food through regular channels, shopping factics, caregiver and infant rely on others to eat, borrowing money. delaying bill payment, making infant food priority, and stealing

Feeding Tactics Dimension
Breastmilk production, mother stops breastfeeding. infant consumes multiple foods and is fed multiple ways to maximize intake and food supply

We created **30** infant food insecurity survey indicators aligned with these 5 dimensions.

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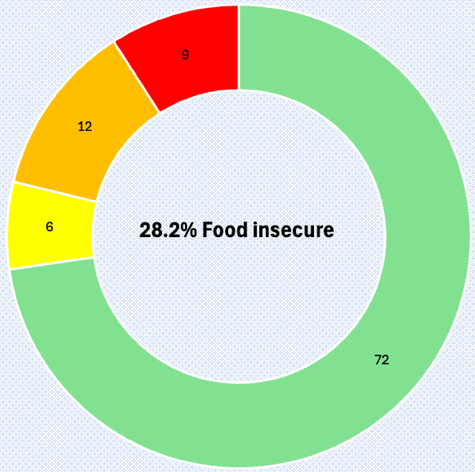
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Phase 2: Online self administered survey with NS caregivers, 2022

Food Security Status of Households with Infants (%), NS, 2022 (n=1225)



Caregivers were mostly biological mothers (97%), aged 30 or older (68%), living primarily in urban areas (69%), and commonly raising one or two children (52%). Most lived in owner-occupied homes (78%) and had postsecondary education (86%). Household incomes varied, but over half reported earnings above $80,000. Infants in the sample were most often mixed-fed (54%) or exclusively breastfed (37%), and families predominantly relied on employment (62%) or maternity/parental leave (28%) as their main source of income. Visible minority representation in the sample was (11%).

Selected Infant food insecurity indicators (%) **Due to financial constraints**



Key Take Aways

Adjusted odds of food insecurity in households with infants

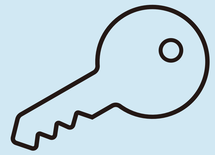
- Non-homeowners **4.19x** for severe food insecurity
- Three or more children **3x** for severe food insecurity
- Maternity/ parental leave **2.6x** for severe food insecurity
- Other sources of income **2.26x** for severe food insecurity
- Income below $40,000 **14.54x** for moderate food insecurity
- Rural households **2x** for moderate food insecurity

- In these NS households with infants, after adjusting for key characteristics above, higher odds of food insecurity remained in households where incomes were low, families did not own their homes, when maternity/parental leave (and other non-employment income) were the main sources of household incomes, had three or more children, and when families lived rurally.

"When I went on mat leave, I was making way less than I was when I was working. So it's definitely been a struggle." - Jennifer

- Infant food insecurity, across all dimensions, and modes of feeding, was significantly associated with household food insecurity severity.

- Households relied on multiple feeding and social tactics to stretch formula, breastmilk, and other infant foods to cope with infant food insecurities.



Implications

Our findings suggest the urgent need for intervention to support food insecure families with infants. Interventions should be aimed at improving incomes in order to economically support infant feeding. Enhanced feeding supports, including the development of non-commercial pathways for infant formula access are necessary.