Comparison of the Lifetime Benefits of Breastfeeding versus a Lifetime of Semaglutide after Childbirth

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Introduction

- ✓ National and international organizations including the World Health Organization recommend women breastfeed for the first two years after childbirth.
- ✓ Despite scientific evidence on the benefits of breastfeeding, rates of maternal breastmilk provision remain low, ranging from 50% for late preterm infants (34-36 weeks birth gestational age) to 63% of term infants (37 weeks birth gestational age or longer) receiving any maternal breastmilk at 12 weeks after birth.
- ✓ Similar to breastfeeding, GLP-1 agonists like semaglutide (Ozempic, Wegovy) are highly effective in weight loss, cardiovascular risk reduction, and glycemic control. GLP-1s have garnered much attention from clinicians and patients.
- ✓ There are few quantitative comparisons of the maternal and infant benefits of breastfeeding relative to other interventions.

Objective

Compute literature-based estimates of related to health tradeoffs for mothers who breastfeed versus take a semaglutide to illustrate the magnitude of lifetime benefits of breastfeeding, a low-cost, highly effective intervention with multi-generational benefits

Methods

- ✓ Review of the literature on the lifetime effects of breastfeeding and semaglutide on health outcomes for women
- ✓ Comparison of the evidence on the incidence of maternal cardiovascular disease and diabetes
- ✓ Review of evidence on the incidence of 3 child/infant health conditions with strong evidence regarding the effect of maternal breastmilk (acute otitis media, asthma and obesity)
- ✓ OR and RR results were converted to cases averted as a common metric using Microsoft Excel
- ✓ Analysis of adverse events were beyond the scope of this report

Results

- ✓ Maternal benefits of breastmilk provision include 360 cases of cardiovascular disease averted and 6,498 cases of diabetes averted per 100,000 population (Table 1, Figure).
- ✓ Compared to lifestyle modification, semaglutide use translates into 8,263 cases of cardiovascular disease averted and 19,211 cases of diabetes averted per 100,000 population with overweight/obesity (Table 1, Figure).
- ✓ Infant/child benefits of breastfeeding include 7,860 cases of acute otitis media, 1,996-2,008 cases of asthma, and 3,256 cases of obesity averted per 100,000 population (Table 2, Figure).
- ✓ Maternal benefits also include reductions in breast and ovarian cancer.

Results

Table 1. Maternal Benefits of Breastfeeding Compared to Semaglutide Benefits

	Breastfeeding	Lifetime Semaglutide (versus lifestyle modification)
Cardiovascular disease	360 (50 to 660)[1,a]	8,263 (7,738 to 8,788)[2]
Diabetes	6,498 (2,964 to 9,843)[3,b] to 7,956 (5,642 to 10,433)[4,c]	19,211 (17,878 to 20,544)[2]
Hypertension cases	2,536 (539 to 4,651)[4,c]	---
Breast cancer	3,043 (2,443 to 3,653)[5,c]	---
Ovarian cancer	404 (317 to 481)[5,c]	---

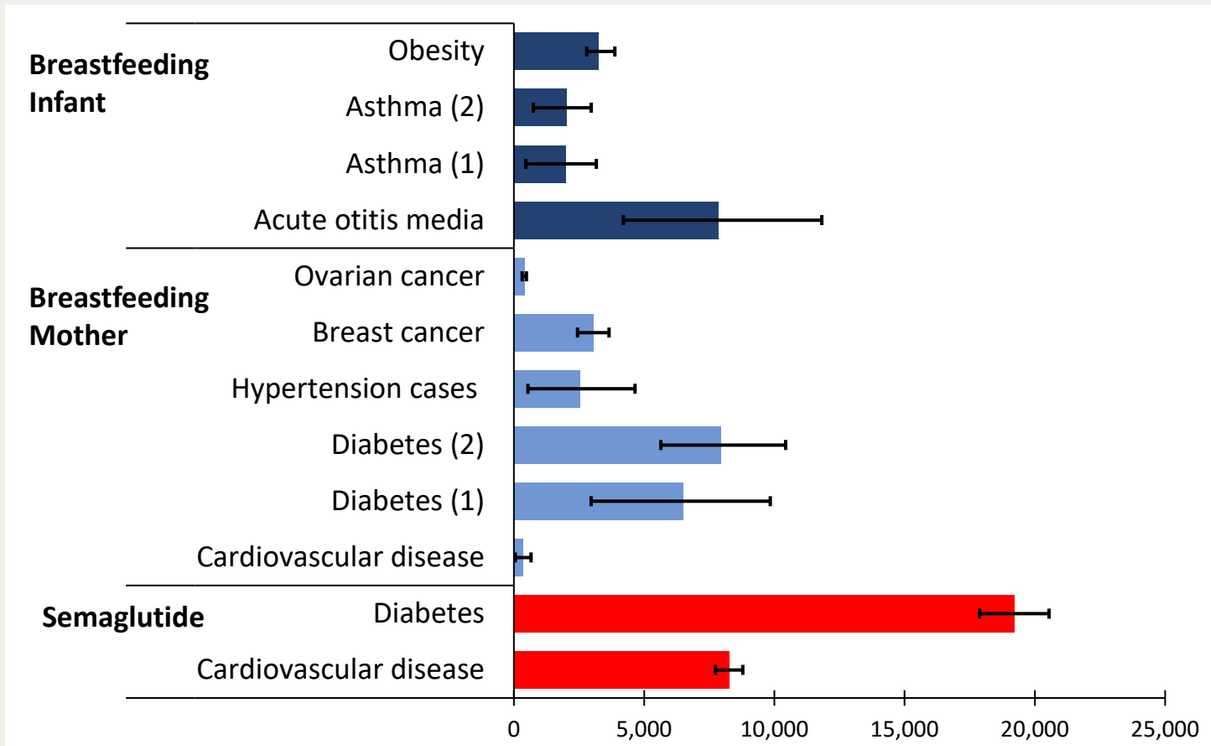
[1] Field et al 2025; [2] Hwang et al 2025; [3] Aune et al 2014; [4] Rameez et al 2019; [5] Chowdhury et al 2022. [a] any v no breastfeeding; [b] breastfeeding for 24 mo+ v <24 mo; [c] breastfeeding for 12 mo+ v <12 mo

Table 2. Infant Benefits of Breastfeeding

	Breastfeeding	Lifetime Semaglutide (versus lifestyle modification)
Acute otitis media	7,860 (4,201 to 11,819)[1,a]	N/A
Asthma	1,996 (455 to 3,165)[2,a] to 2,008 (746 to 2,968)[3,b]	N/A
Obesity	3,256 (2,797 to 3,876)[4,a]	--- N/A

[1] Bowatte et al 2025; [2] Zhou & Tang 2025; [3] Abate et al 2025; [4] Yan et al 2014;
[a] any v no breastfeeding; [b] exclusive breastfeeding v non-exclusive breastfeeding

Figure. Summary of Cases Averted per 100,000 Population



Discussion and Conclusions

- ✓ Breastfeeding and semaglutide accrue significant health benefits to both mother and infant.
- ✓ Cases averted depend on the lifetime use of semaglutide compared to <24 months of breastfeeding. However, the benefits of semaglutide metabolic health are largely dependent on continued use while the benefits of breastfeeding are sustained after breastfeeding cessation.
- ✓ Overall, breast feeding is a relatively short-term intervention with numerous lifetime benefits. Further, semaglutide taken post-breastfeeding may provide additive benefits.