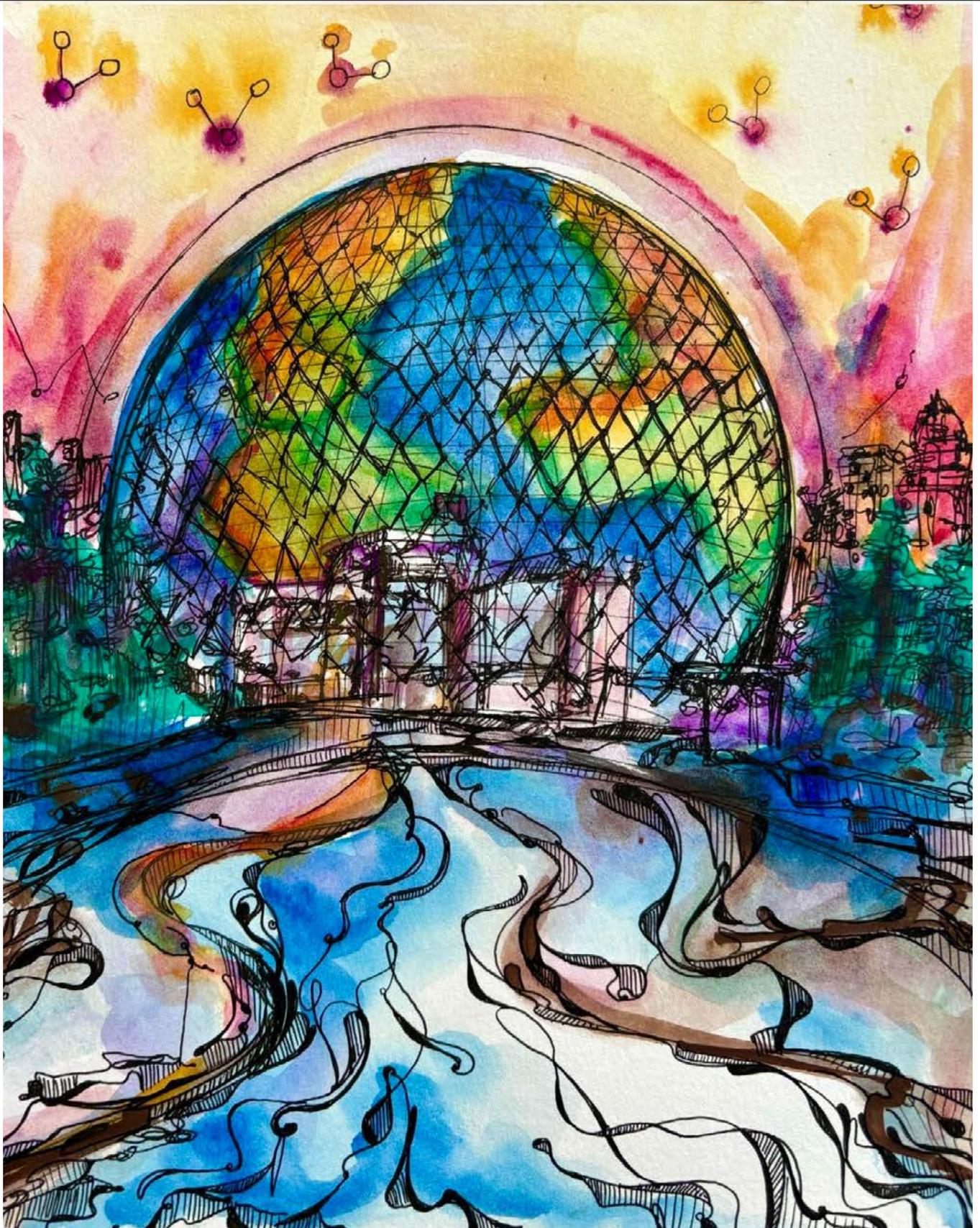


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Maternal Vaccine Hesitancy—A Global Challenge Requiring Local Action

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A newborn, only hours old, may already be at risk of fatal diseases such as pertussis or influenza because the mother was not vaccinated during pregnancy. This is a harsh reality for families worldwide, and Canada is no exception. Despite scientific evidence supporting the safety and effectiveness of maternal vaccination, many expectant mothers remain hesitant.

The World Health Organization (WHO) defines vaccine hesitancy as a “delay in acceptance or refusal of vaccines despite availability of vaccination services” [1], and identifies it as one of the top ten global health threats. The consequences are evident in the resurgence of vaccine-preventable diseases even in countries with previously high immunization rates. In the United States, where maternal immunization programs were well established, influenza vaccine coverage among pregnant women during the 2022–2023 season was 47.2%, and Tdap (the combined tetanus, diphtheria, and pertussis vaccine) coverage was only 56.2% [2]. These figures fall short of the CDC’s (Centers for Disease Control and Prevention) Healthy People 2030 targets. Canada reflects a similar pattern: nearly 35% of pregnant women were unvaccinated against pertussis, and 47% were unvaccinated against influenza [3]. Provincial disparities further illustrate the uneven pertussis vaccine uptake, ranging from 52% uptake in British Columbia to 80% in Nova Scotia. In low and middle-income countries (LMICs), maternal vaccine uptake also remains suboptimal. A cross-sectional study of 95 LMICs found that only 44% had met the global target of >90% coverage for tetanus toxoid vaccination among pregnant women [4]. These gaps in vaccine coverage reflect a troubling reality, given evidence from a systematic review demonstrates that unvaccinated pregnant women face increased risks of preterm birth, stillbirth, pre-eclampsia, gestational diabetes, and severe respiratory infections. As a result, newborns remain unprotected in their critical months when they depend on maternal antibodies for immunity. This is why infants born to unvaccinated mothers are more vulnerable to serious illnesses like pertussis, which can lead to pneumonia, encephalopathy, and even death [5].

To reverse these trends, we must first understand the root causes of maternal vaccine hesitancy. Misinformation and deep-rooted mistrust are among the most significant drivers. Dr. Noni MacDonald, a global health expert at Dalhousie University, notes, “Misinformation and disinformation (‘fake news’) about vaccines are contagious, traveling faster and farther than truth” [6]. Anti-vaccine propaganda, amplified through social media and politicized narratives, has eroded public trust in vaccines. This erosion of trust is particularly pronounced in marginalized populations,

including Indigenous communities and some immigrant groups, who have historical and systemic reasons to be wary of mainstream healthcare systems. These communities often face barriers to culturally safe care and have experienced discrimination within the health system. Indeed, in Canada, Indigenous leaders have raised concerns about top-down vaccination campaigns that fail to incorporate community knowledge. Tackling maternal vaccine hesitancy in such contexts requires community-led, trust-building approaches beyond public health messaging. Promising models include the approach taken by Nishnawbe Aski Nation in Northern Ontario, which implemented a maternal vaccination campaign that used Indigenous languages and respected elders as spokespeople, leading to a notable increase in vaccine uptake [7].

In addition to community-led initiatives, evidence-based public health strategies have shown promise in improving maternal vaccination. The CDC’s “Vaccinate with Confidence” strategy in the United States focuses on strengthening provider–patient communication, countering misinformation, and engaging at-risk communities through targeted outreach [8]. Similarly, in Canada, Nova Scotia—recognized as the leading province for maternal vaccine coverage—attributes its success to a combination of clear provincial guidelines, provider incentives, and public health campaigns embedded within routine prenatal care.

Health systems must adopt approaches tailored to the diverse contexts and communities affected by maternal vaccine hesitancy to scale and sustain progress. A key component of this effort involves equipping healthcare providers to communicate about vaccines with confidence and empathy. This includes training in motivational interviewing techniques, which help providers have respectful, supportive conversations and respond to individual concerns. The training should emphasize the principles of cultural safety to foster trust and promote equity, particularly among Indigenous and immigrant communities. In Quebec, for example, the PromoVac strategy and the Entretien Motivationnel en Maternité pour l’Immunisation des Enfants (EMMIE) program both apply motivational interviewing within maternity care. Evaluations of these initiatives have shown increased vaccine acceptance and reduced hesitancy among pregnant women [9].

Community-focused interventions must complement provider-level strategies. Developing and funding culturally safe, community-led vaccination initiatives can bridge trust gap and improve access. These programs should involve



community members and health professionals who understand and respect local realities. Examples such as the Priscilla Project in the U.S., which supports socially isolated pregnant women through community health workers, multilingual education, and personalized care, demonstrate how such approaches can increase vaccine uptake [10]. In Canada, the Immunization Partnership Fund supports local, culturally tailored initiatives to address vaccine barriers [11]. In LMICs, community-based participatory research has been used to involve local populations in co-designing interventions that respond to specific concerns and emphasize the importance of context-specific solutions [12]. Engaging trusted community actors such as faith groups, immigrant service providers, Indigenous organizations, and local leaders can amplify vaccine messaging and promote uptake within familiar settings. Moreover, vaccines must be made accessible during routine prenatal visits, ideally at no cost. On-site availability and attention to practical barriers such as transportation, childcare, and clinic access are crucial. This may also require strengthening primary healthcare infrastructure and deploying mobile vaccination clinics.

Ultimately, tackling barriers to maternal vaccine uptake requires integrated, community-driven, and culturally responsive approaches. Vaccine hesitancy during pregnancy undermines public health efforts. It puts mothers and newborns at preventable risk - not due to a lack of scientific evidence, but due to persistent misinformation, systemic inequities, and deep-rooted mistrust. As Dr. Heidi Larson of the Vaccine Confidence Project reminds us, "The answer to combating today's currents of vaccine dissent is far more complex than addressing the needed technical fixes. We need to start by being open to discussion and making information available in a language and context relevant to those we are communicating with" [13].

An effective response must be inclusive, coordinated, and evidence-informed, rooted in empathy and built on trust. It must reflect the lived realities of diverse communities, whether in high-income countries or LMICs. As the saying goes, "trust is built in drops and lost in buckets." Rebuilding vaccine confidence will not happen overnight, but with intentional action, humility, and partnership, we can protect the health of mothers today and ensure a safe future for generations to come.

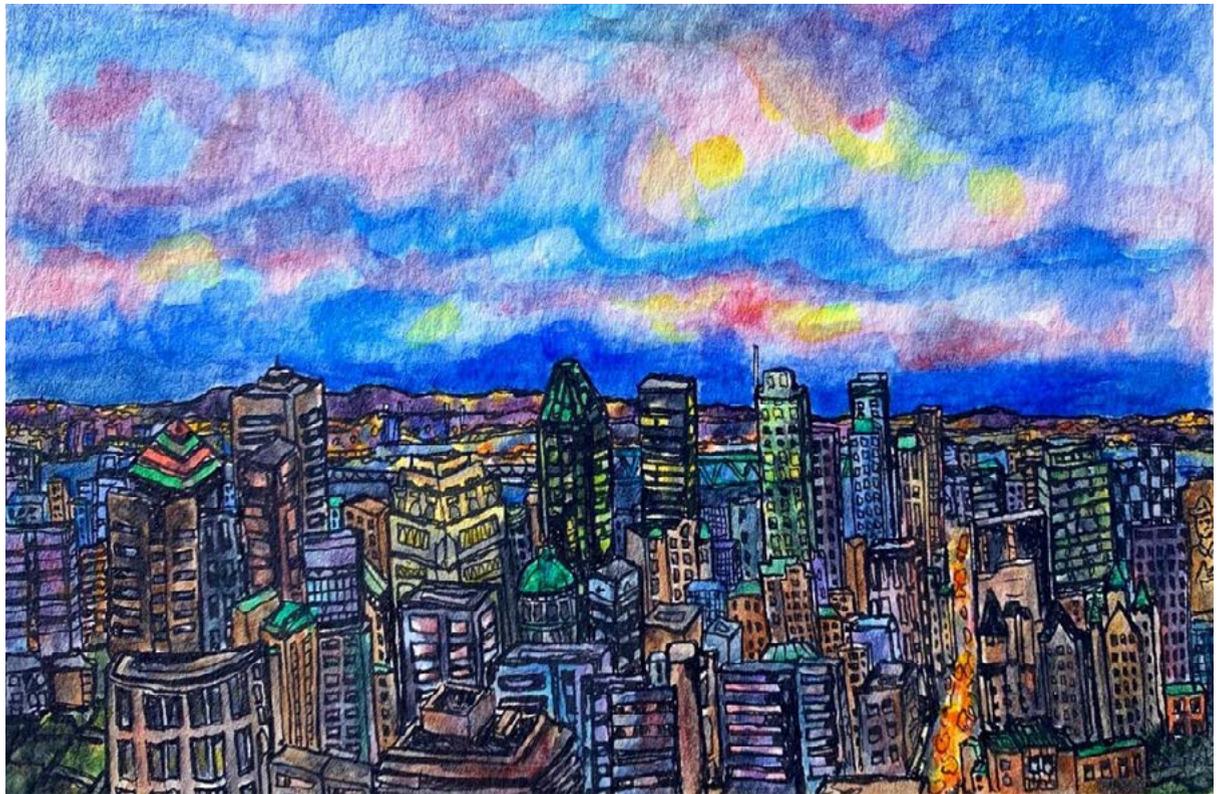
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