

Stop the whoop, In the womb

Making a case for vaccination against pertussis among pregnant women in the Philippines

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STOP THE WHOOP, IN THE WOMB

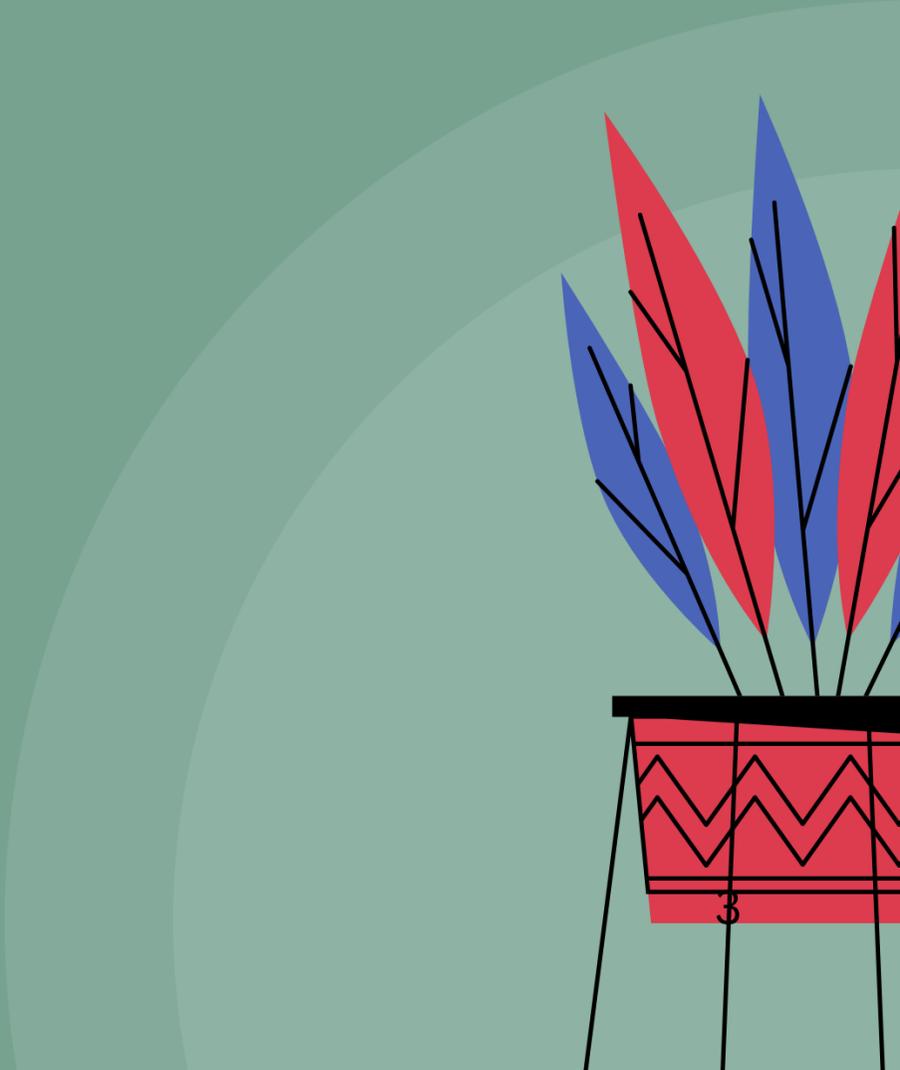
- Hi! You can call me **Mike**.
- I'm from the Philippines, currently affiliated with the Department of Health as a Planning Officer.
- Part of the in-country pool of facilitators of the D2P Philippines.
- Attended the 2024 Istanbul Health Economics Workshop.
- Areas of interest: health financing, health policy analysis



Meet Carmen, a beautiful baby girl born in 2024, healthy and full of promise. She was the first child of her parents, who were overjoyed to finally hold her in their arms.

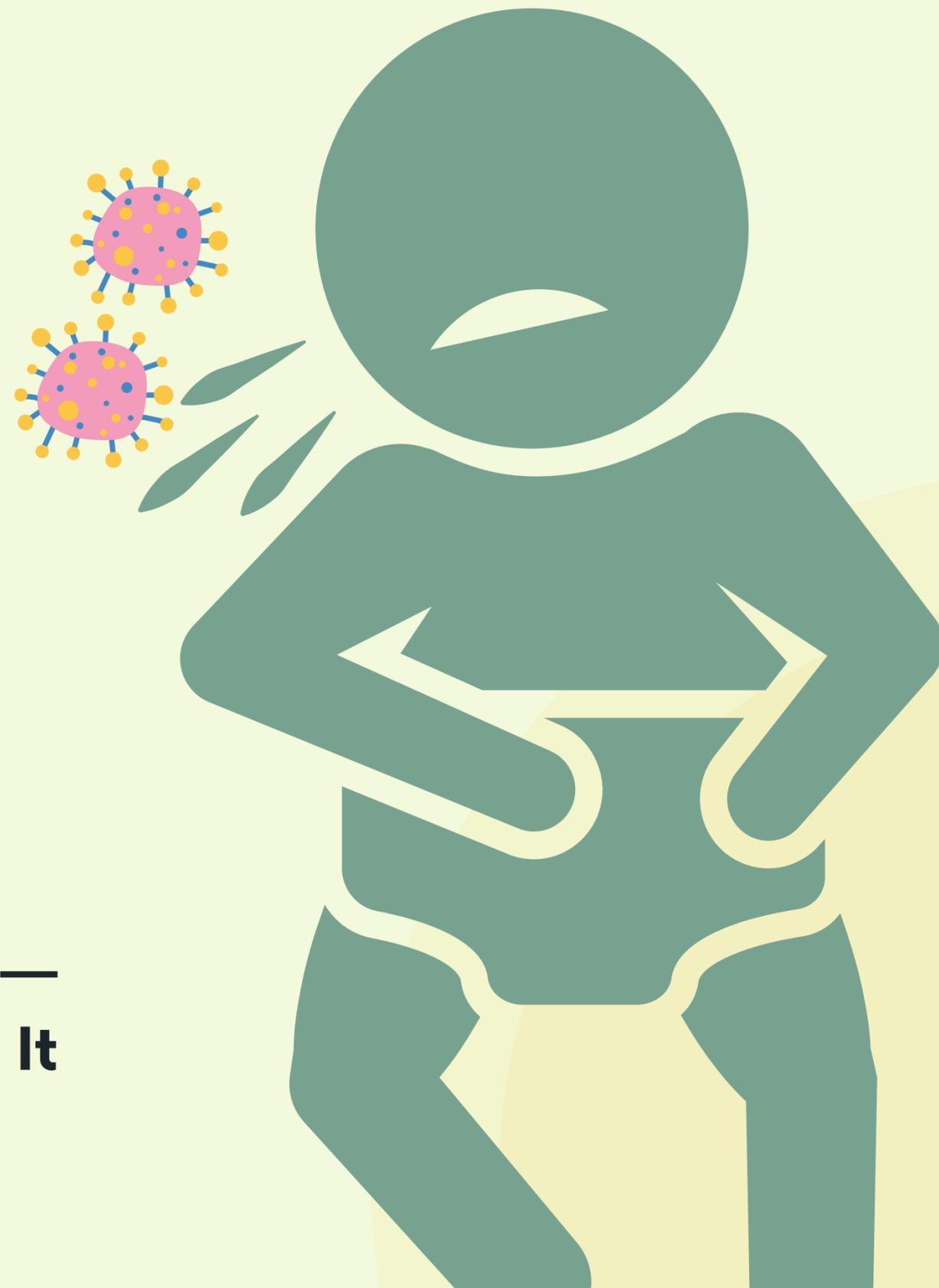


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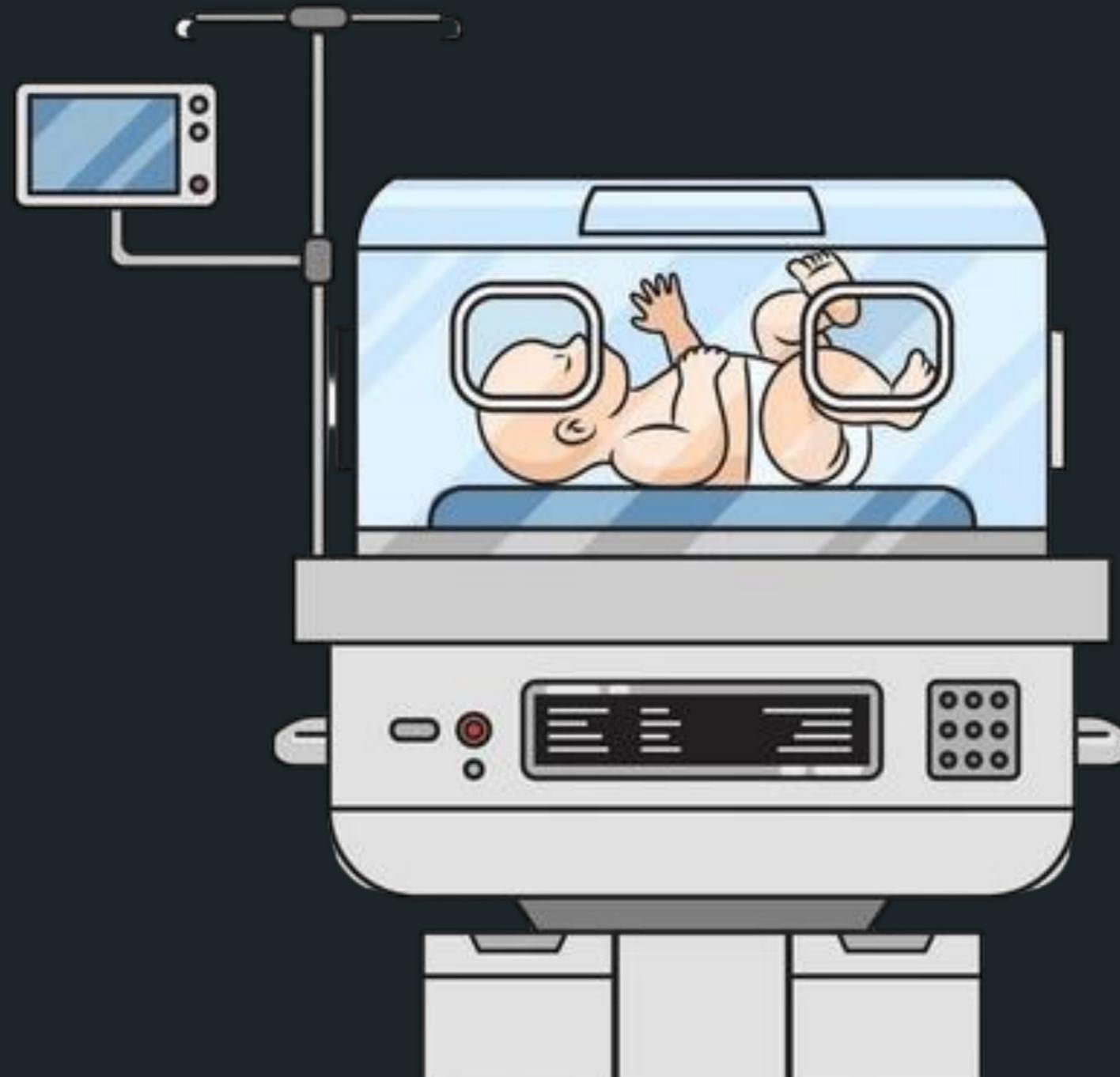


But just weeks after birth, Carmen developed a strange, persistent cough—harsh, gasping, and difficult to watch. It sounded like a “whoop.”

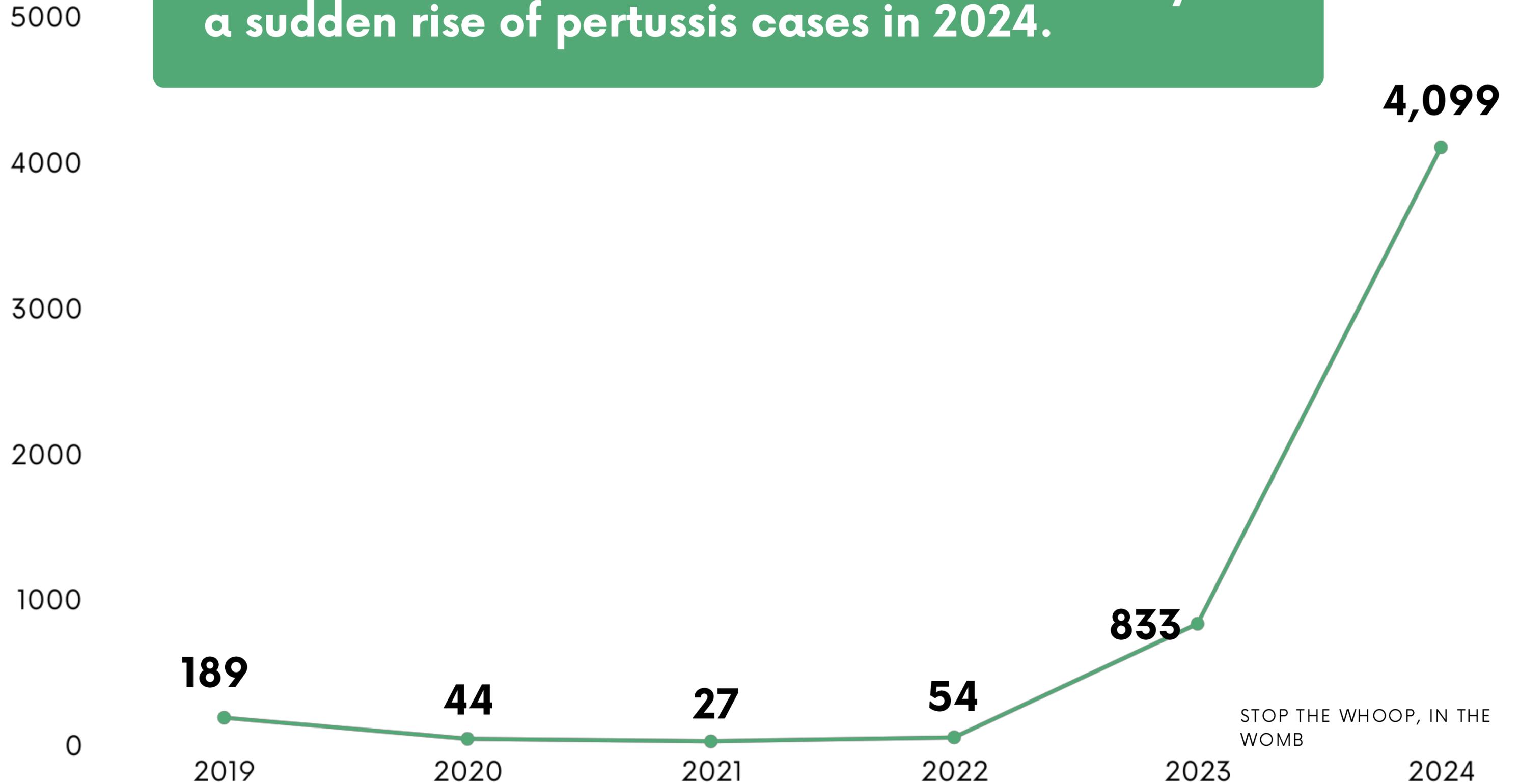
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She was rushed to the ICU. Despite all efforts, Carmen didn't make it.

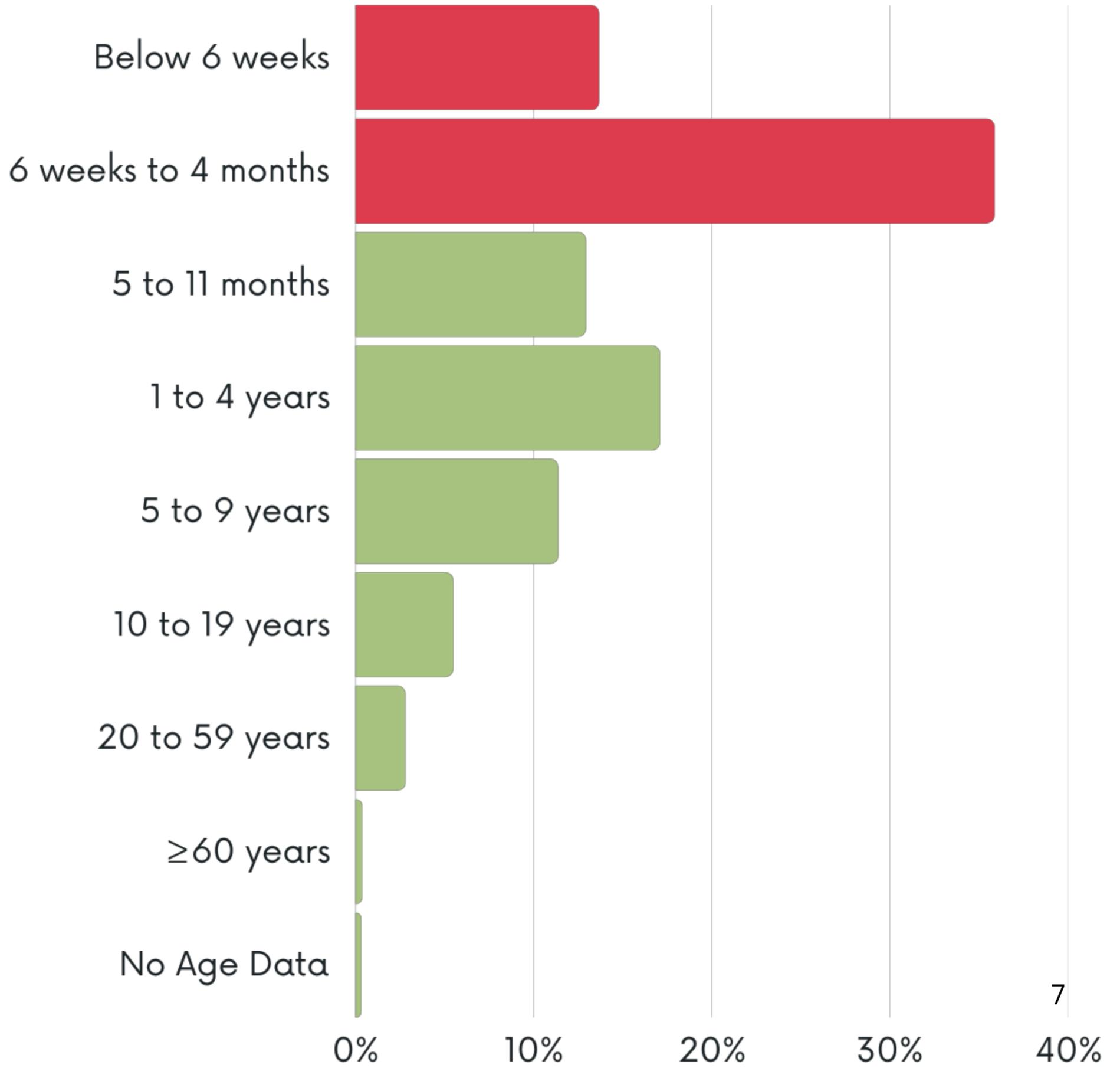


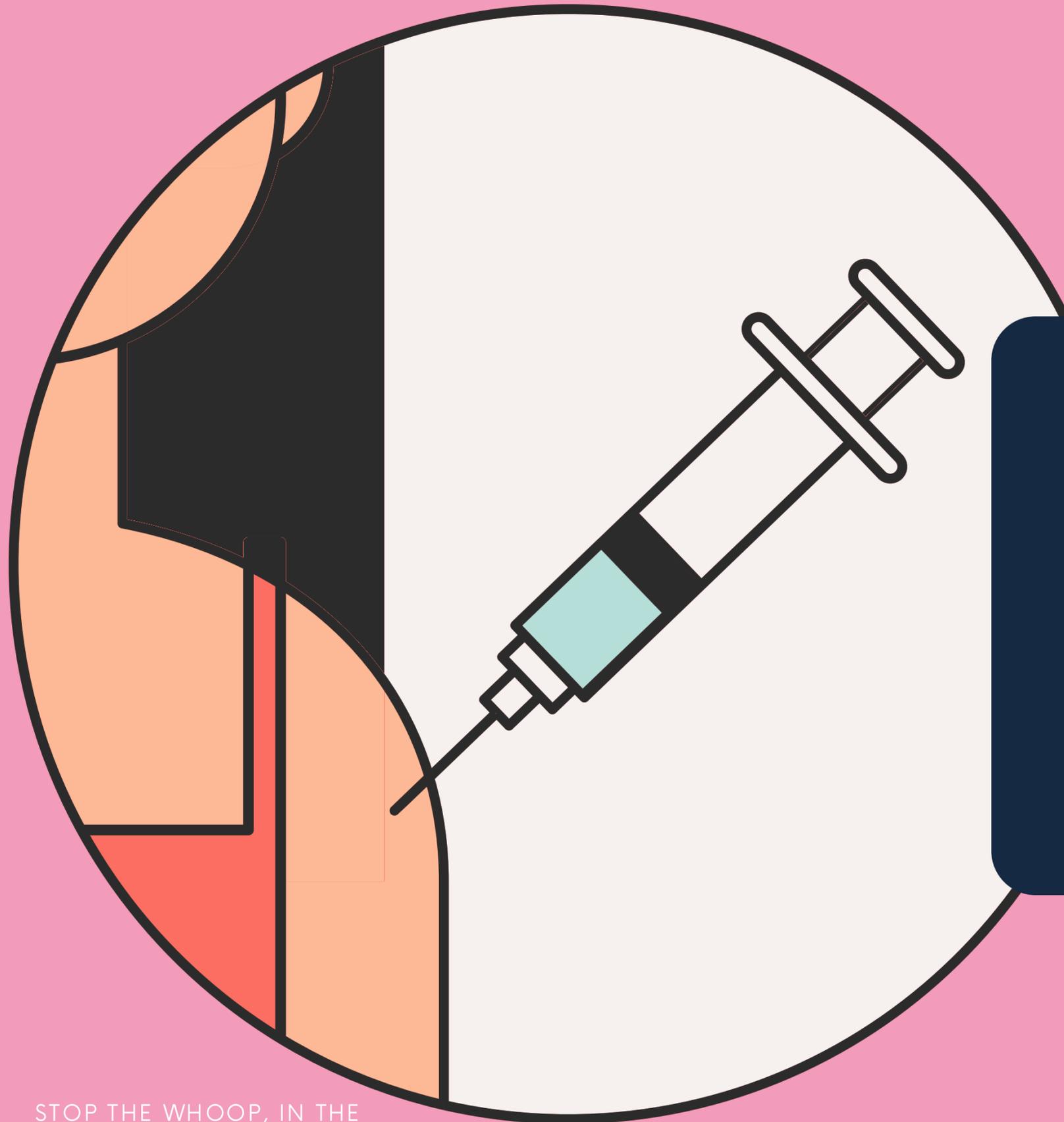
Carmen's situation is not isolated. The country saw a sudden rise of pertussis cases in 2024.



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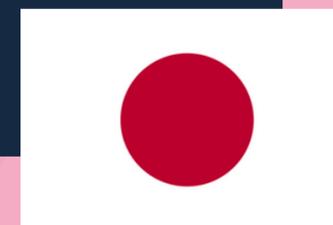
Infants under 4 months—too young to complete their vaccines—make up half of all pertussis cases in the 2024 outbreak.





One potential strategy is to vaccinate pregnant women with pertussis vaccine.

Robust evidence has shown that it can protect infants through transfer of maternal antibodies.



Our goal for this fellowship



Policy Question

Does vaccinating pregnant women with Tdap a cost-effective intervention to reduce deaths among <6 weeks old from pertussis infection?

Population

Pregnant women

Model Type

Decision tree with Markov

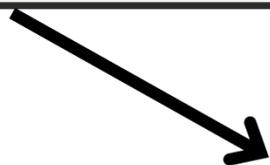
Outcome of Interest

Life years gained; ICER

Data Source

Administrative data, population statistics, country surveys, CEA literatures

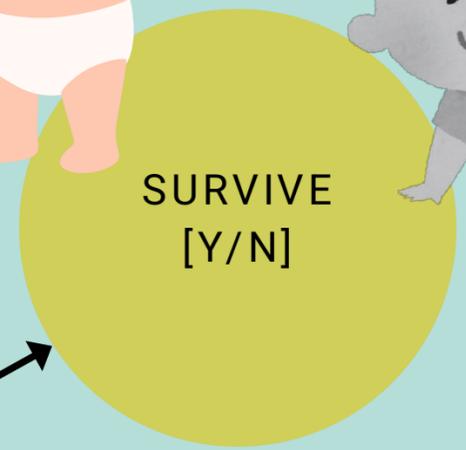
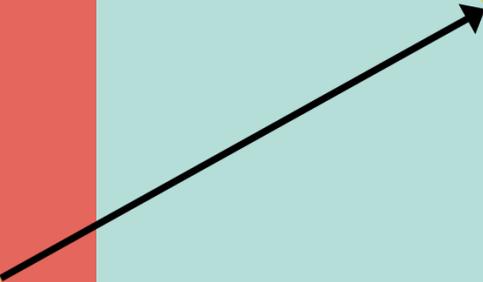
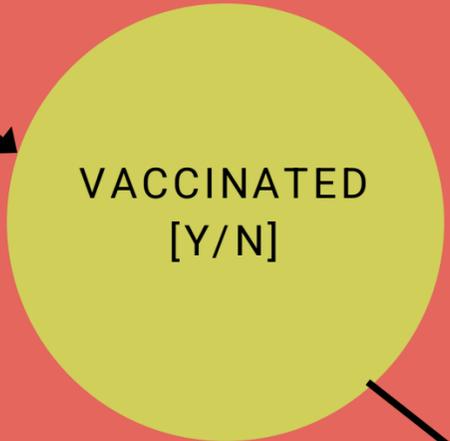
Strategies	Description	Operational Feasibility	Political Feasibility	Potential Health Impact
Status Quo	Usual catch-up routine immunization programs beginning at 6, 8.5, and 12.5 weeks old	High	Medium	Low
Maternal vaccination against pertussis at 3rd trimester	Shift to Tdap vaccine for mothers, to be provided at 3rd trimester	High	High	High



Reasons for not adoption: low incidence rates, poor surveillance, upfront cost of vaccine; limited CEA studies in PH setting



PREGNANT WOMAN

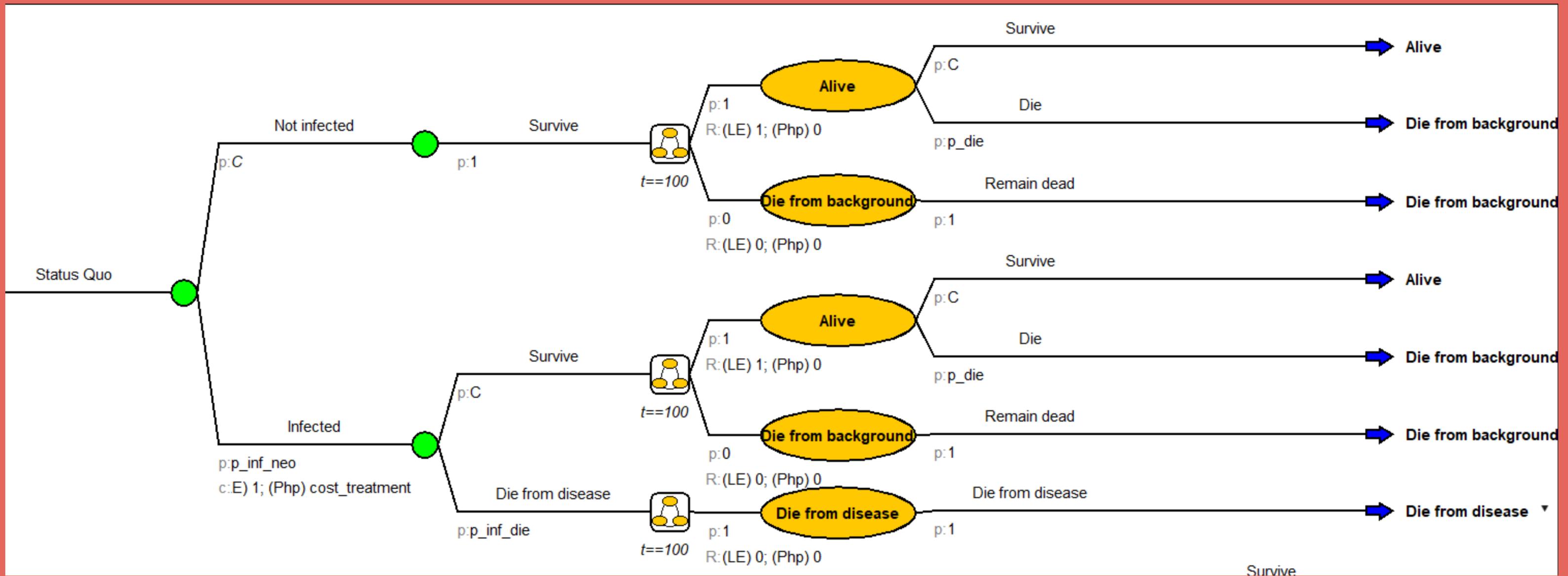


Decision Tree

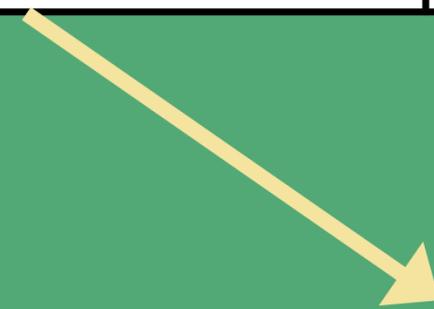
Markov

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Perspective: Government/Department of Health



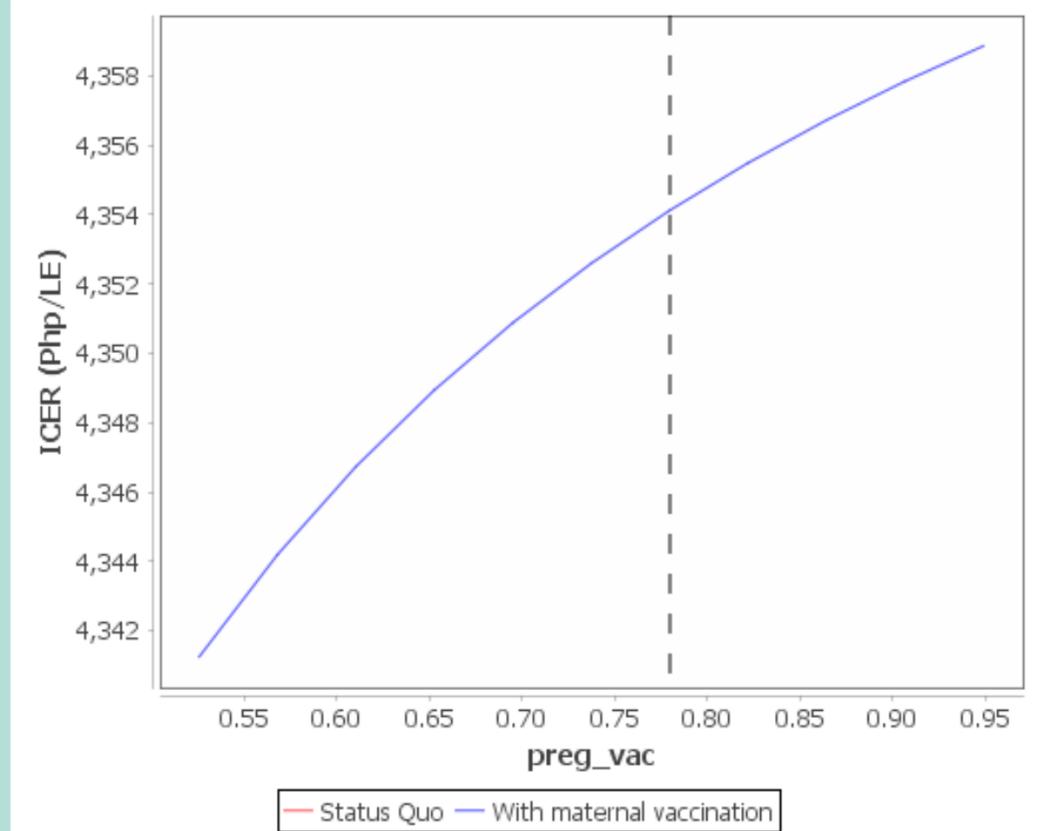
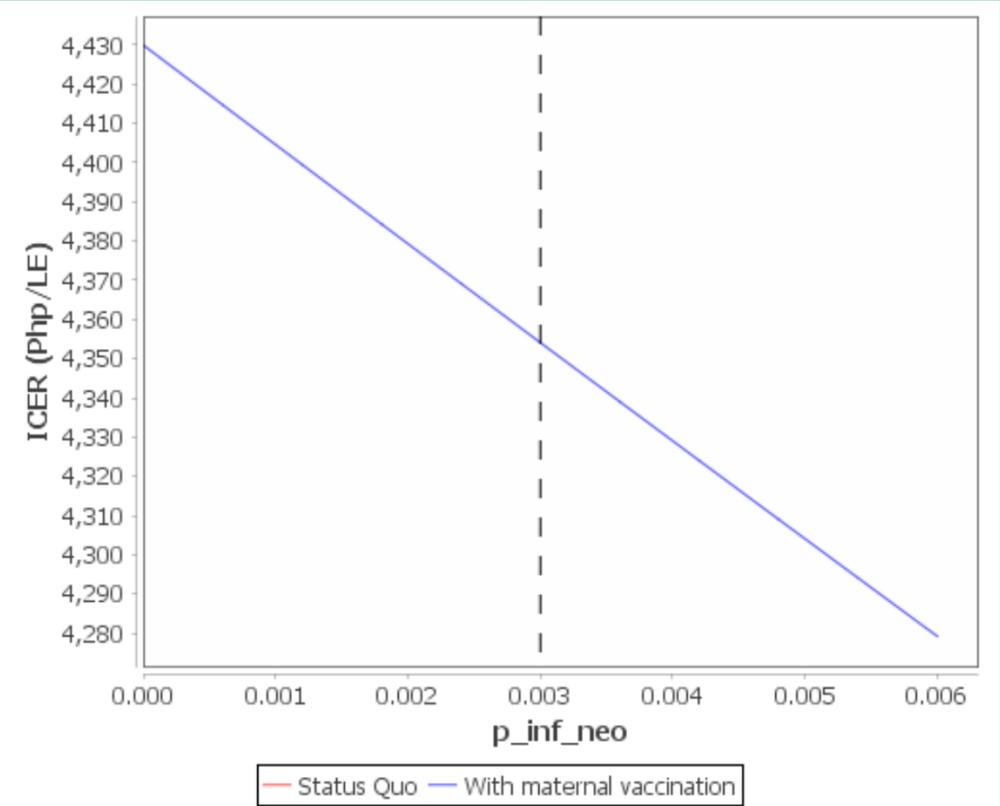
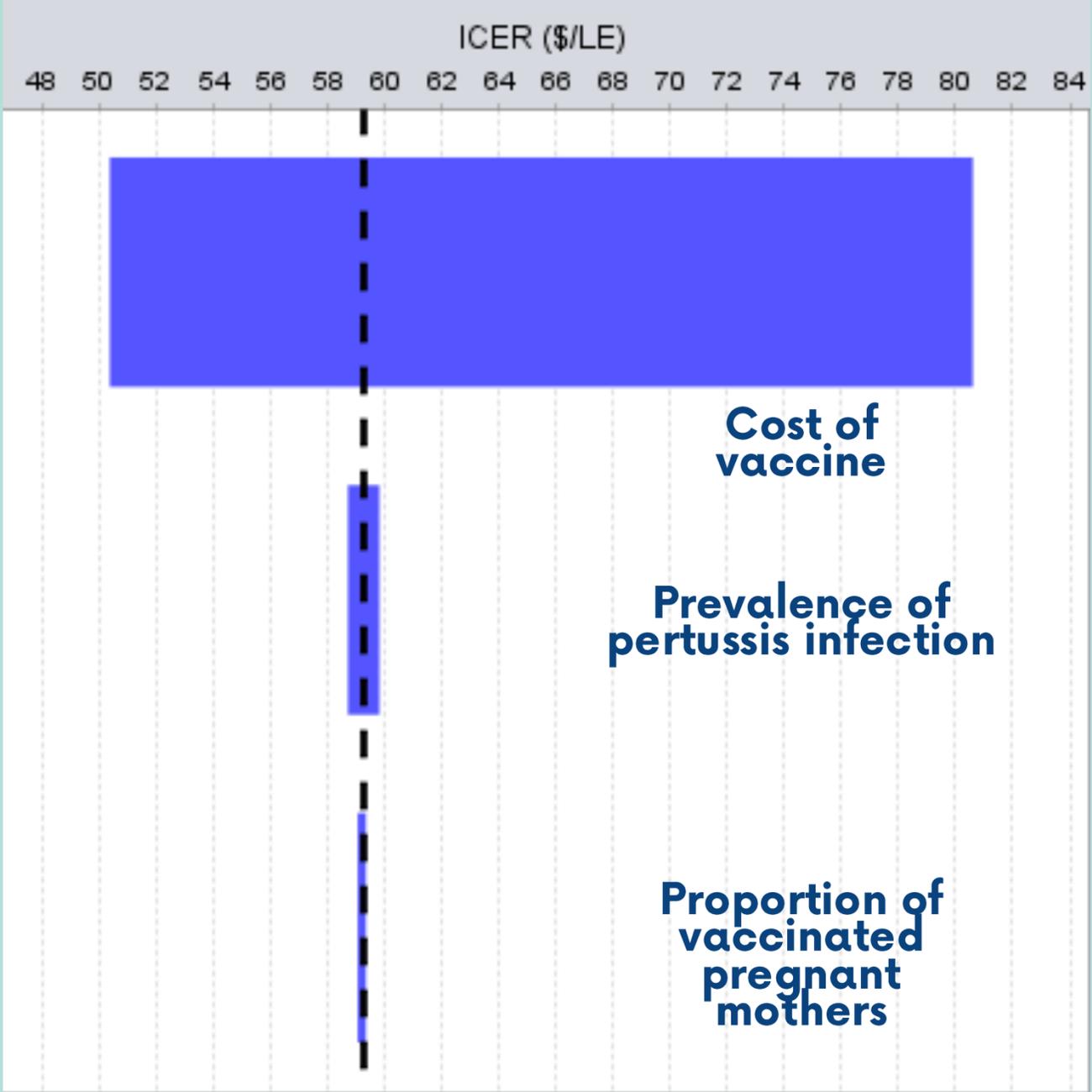
Strategy	Costa[in USDb]	Life Yearsa	ICER/Life Years Gained [in USD]
Status Quo	None	1.2568	
With maternal vaccination	7,716,668.17c	1.2670	59.26



**Translates to
1,462 lives
saved!**

a Discounted at 5.33% per Philippine HTA Methods Guide
b \$ 1 = Php 55.58
c Only includes vaccine dose and admin cost

Maternal pertussis vaccination remains cost-effective across plausible ranges.



Where to go from here?



Publish and present our model to the maternal health program manager and relevant policymakers for adoption



Utilize this study as a model policy brief for D2P Philippines



Advocate the inclusion for priority review of this intervention to our Health Technology Assessment Council