

Understanding The Impact of Approved but Unfunded Vaccine Status on Parental Acceptance of an Adjuvanted Seasonal Influenza Vaccine for Infants

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Background

- In Canada, seasonal influenza vaccination coverage among infants falls well below the target of 70%.
- Adjuvanted trivalent influenza vaccine (aTIV) provides enhanced protection against influenza for infants and young children, rapidly inducing higher and more persistent homologous (vaccine strain-specific) and heterologous antibody responses than non-adjuvanted vaccine (TIV).
- A MF59[®]-adjuvanted trivalent influenza vaccine (Fluad[®] Pediatric, Seqirus Inc.) is approved in Canada for use in 6 – 24 month-old children. This aTIV is now available for private use in Canada, and is not publicly funded (PF). Generally, non publicly funded (NPF) vaccines have a lower acceptance by parents.

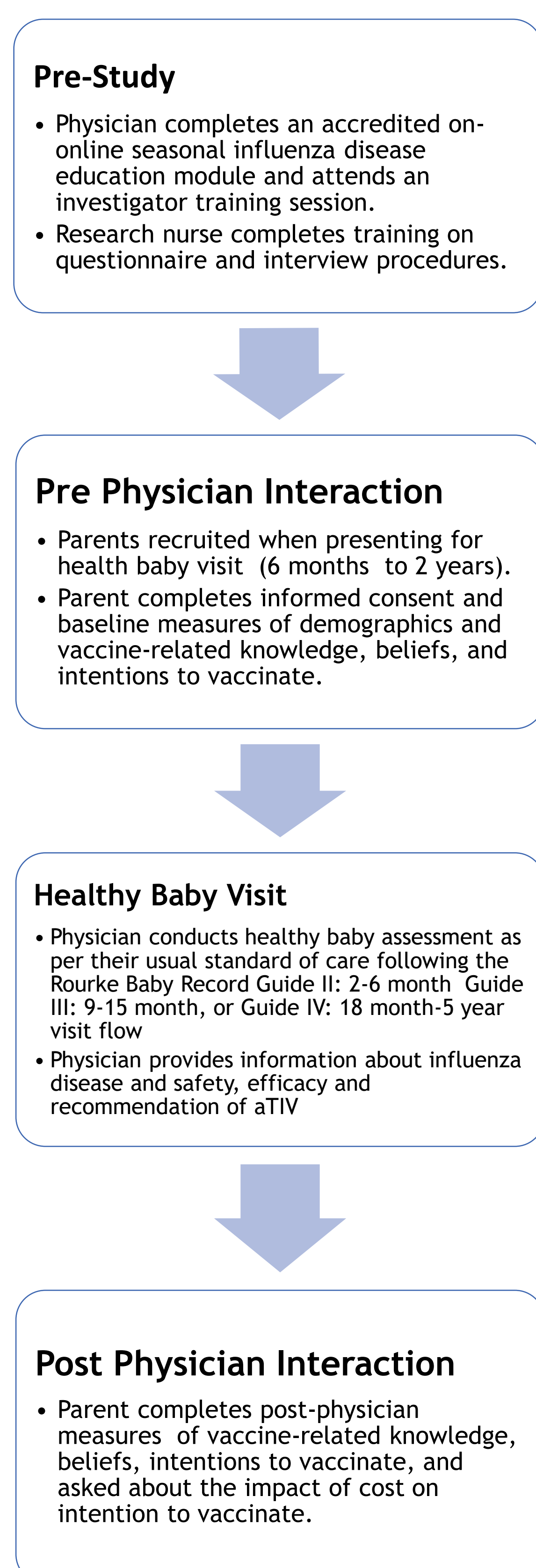
Objective

The primary objective of this study was to understand how public funding status influences parental intentions to vaccinate, with aTIV and perceptions of this vaccine safety and effectiveness.

Methods

- Study design:** Prospective cohort survey
- Time period:** 2015-16 influenza season
- Survey population:** Parents of infants aged 2 to 6 months, presenting for a scheduled "healthy-baby visit", were recruited and interviewed by the research nurse before and after the physician interaction where information about influenza and aTIV was provided (Figure 1).

Figure 1. Procedures and Protocol Study Flow



- Statistical analysis:** Proportions of parents with specific beliefs were tabulated; correlation coefficients, and corresponding two-tailed measures of significance (p-values) were also calculated.
- Ethics:** The research protocol received ethics approval by the Western University Health Sciences Research Ethics Board, the Fraser Health Research Ethics Board, and IRB Services.

Results

- A total of 24 community practice and public health clinics across Canada participated; 15 community practice clinics enrolled 136 parents whilst 9 public health clinics enrolled 71 parents ($n_{\text{total}} = 207$)
- Generally, HCPs were generally poor at predicting parental intentions to vaccinate their children with aTIV if NPF (Table 1)

Table 1. Correlation between physician's assessment of parent's intentions to vaccinate with the adjuvanted seasonal flu vaccine and Parents' actual intentions to vaccinate

		Physician Assessment of Parent intention to Vaccinate with Flu Vaccine	Parent intention to Vaccinate with Flu Vaccine	intention to Vaccinate with Flu Vaccine if Free	intention to Vaccinate with Flu Vaccine if 25\$	intention to Vaccinate with Flu Vaccine if 50\$
Physician Assessment of Parent intention to Vaccinate with Flu Vaccine	CC [†]	1	0.600**	0.483**	0.266**	0.146*
	P-value		<0.001	<0.001	<0.001	0.036
Parent intention to Vaccinate with Flu Vaccine	CC	0.600**	1	0.864**	0.557**	0.373**
	P-value	<0.001		<0.001	<0.001	<0.001
intention to Vaccinate with Flu Vaccine if Free	CC	0.483**	0.864**	1	0.638**	0.416**
	P-value	<0.001	<0.001		<0.001	<0.001
intention to Vaccinate with Flu Vaccine if 25\$	CC	0.266**	0.557**	0.638**	1	0.805**
	P-value	<0.001	<0.001	<0.001		<0.001
intention to Vaccinate with Flu Vaccine if 50\$	CC	0.146*	0.373**	0.416**	0.805**	1
	P-value	0.036	<0.001	<0.001	<0.001	

[†]CC – correlation coefficient

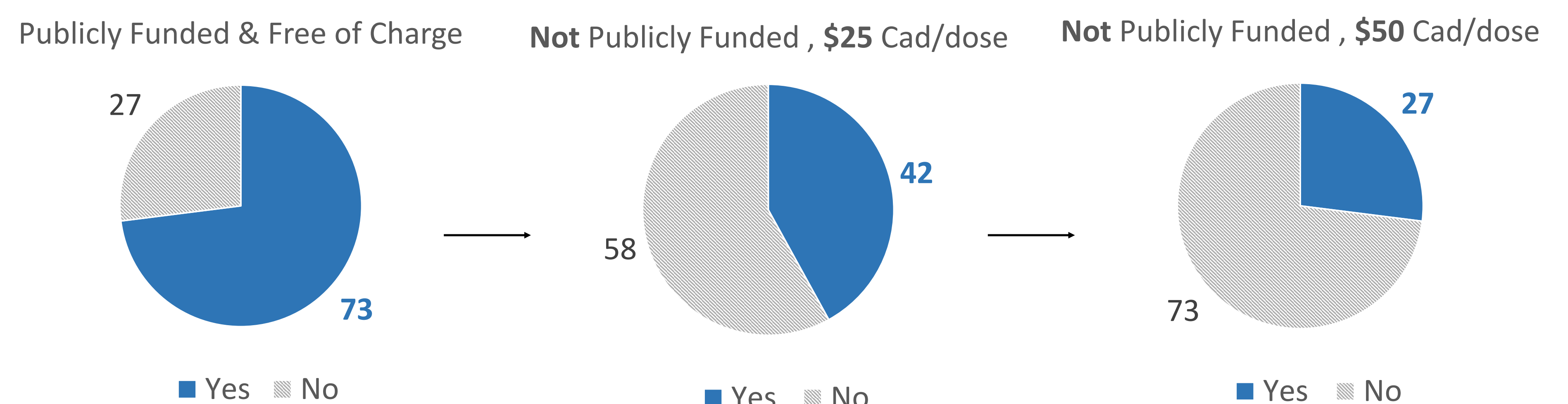
[°] Canadian dollars.

Correlation is significant at the $\alpha = 0.01$ level (2-tailed). **

Correlation is significant at the $\alpha = 0.05$ level (2-tailed). *

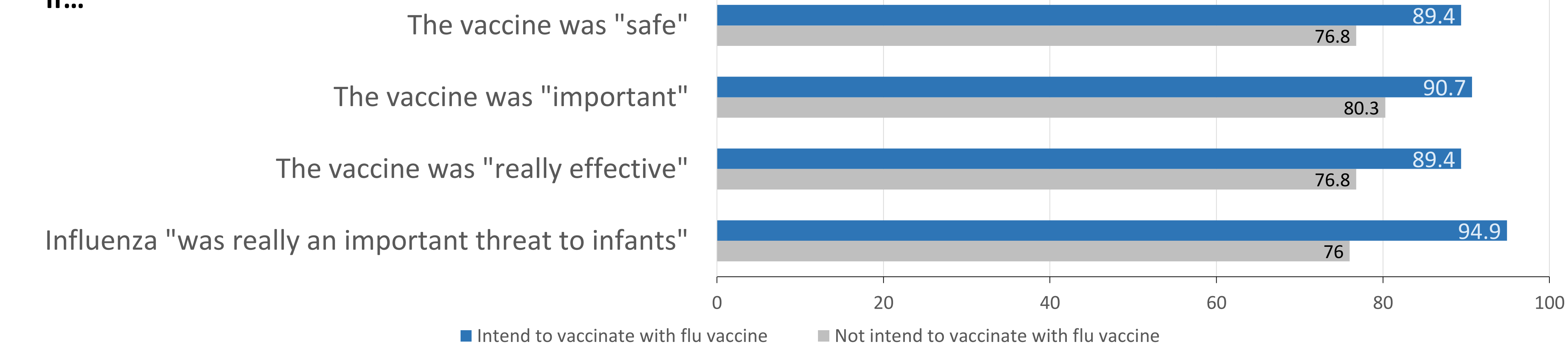
- The percentage of parents intending to immunize their children with aTIV decreased with increasing cost (Figure 1).

Figure 1. Percentage of parents intending to immunize their children with aTIV; Responses of "Strongly Agree or Moderately Agree" are presented.



- Funding status had a substantial impact on beliefs about aTIV vaccine in the majority of parents (Figure 2).

Figure 2. Percentage of recruited parents that strongly/moderately believe Public Health would fund the aTIV vaccine if...



Conclusions

- Funding status had a significant influence on whether parents perceived immunization with aTIV to be necessary, safe, and effective. Consequently, willingness of parents to vaccinate their children with aTIV was decreased due to it being a NPF vaccine.
- Parents need to understand that NPF status does not discount the importance of influenza prevention and the safety and efficacy of aTIV in terms of disease prevention and risk reduction.
- Information on influenza and aTIV should be provided to parents routinely, in order to raise awareness and to allow individuals to make well informed decisions on the suitability of aTIV for their child.

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