

# Decreasing HPV Vaccine hesitancy among Colombian teenagers and their families: an analysis based on the COM-B model

Verónica Córdoba-Sánchez<sup>1</sup>, Mariantonia Lemos<sup>2</sup>, Diego Tamayo-Lopera<sup>1</sup>, Sherri Shenfeld-Gorin<sup>3</sup>

<sup>1</sup> Institución Universitaria de Envigado, <sup>2</sup> Universidad EAFIT, <sup>3</sup> University of Michigan, School of Medicine

## BACKGROUND

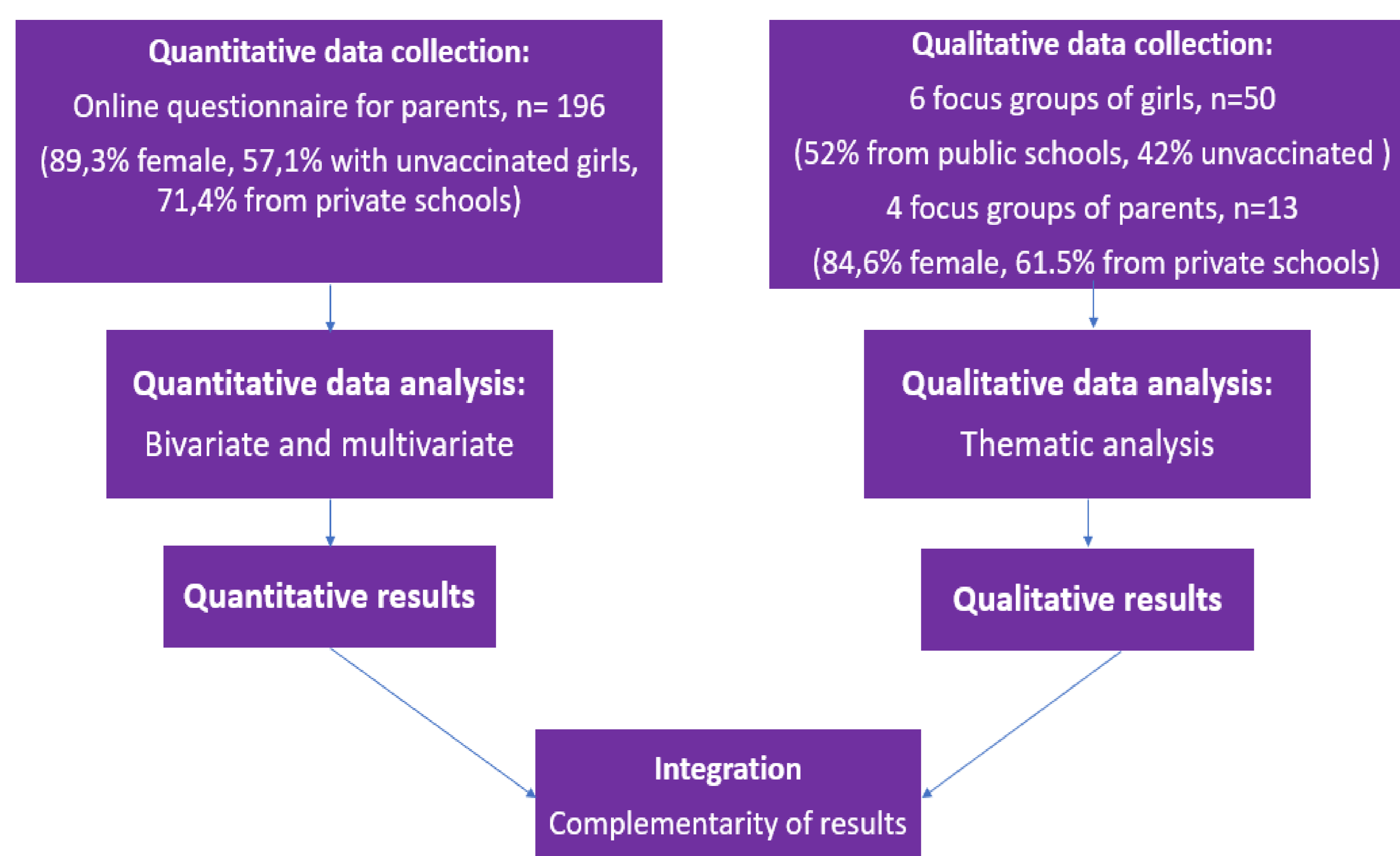
Cervical cancer in Colombia is the first cause of cancer mortality and the second in incidence among women. Almost all cervical cancers are caused by persistent infections with high-risk, types of human papillomavirus (HPV). The uptake of HPV vaccine rate dropped from 96.7% after its introduction in 2013 to 9% in 2020, primarily due to a 2014 massive psychogenic event post-vaccination in the country.

## OBJECTIVE

To identify behavioral components involved in HPV vaccine hesitancy

## METHODS

Figure 1. Convergent mixed methods design



## RESULTS

Table 1. A joint display of factors influencing HPV vaccine hesitancy to parents/caregivers and daughters based on the COM-B model

Source of behavior	Quantitative data from the online questionnaire	Themes from the focus groups
<b>Capability</b>	<p>11.7% did not perceive that their daughter would be susceptible to contracting HPV and 84.7% perceived that their daughter was susceptible to cervical cancer.</p> <p>96.9% were aware that they should get their daughter vaccinated but 69.4% did not receive any information about HPV vaccination for their daughter.</p> <p>Relationship between likelihood of vaccinating daughter and perceived susceptibility to HPV, Spearman <math>r = 0.309</math>, <math>p &lt; 0.001</math>.</p> <p>87.8% trusted the information they received about vaccines.</p> <p>Relationship between likelihood of getting vaccinated and receiving positive information about the vaccine, Spearman <math>r = 0.338</math>, <math>p &lt; 0.001</math></p>	<p>Lack of information</p> <p>Relationship between HPV and Cervical Cancer</p>
<b>Opportunity</b>	<p>Relationship between likelihood of getting vaccinated and medical recommendation, Spearman <math>r = 0.221</math>, <math>p &lt; 0.01</math></p> <p>Relationship between likelihood of getting vaccinated and seeing others get vaccinated, Spearman <math>r = 0.158</math>, <math>p &lt; 0.05</math></p>	<p>Trust in traditional institutions</p>
<b>Motivation</b>	<p>30.1% were concerned about vaccine effectiveness</p> <p>32.7% were concerned because vaccines may have adverse effects</p> <p>31.6% were concerned about vaccine safety</p> <p>Relationship between likelihood of getting vaccinated and vaccine safety, Spearman <math>r = 0.277</math>, <math>p &lt; 0.001</math>.</p>	<p>Association of HPV with sexuality</p> <p>The vaccine as an act of care</p> <p>Respect for the personal decision to be vaccinated</p>

### Lack of information



Mother of unvaccinated girl, age 45

"I saw on the news when the girls from the coast were vaccinated and they fainted, so there is no one in my family who has received those vaccines"

### Relationship between HPV and Cervical Cancer



Mother of girl, one doses, age 41

"I understand that cervical cancer is caused by the virus, the human papillomavirus, and that it is totally preventable with the vaccine."

### Trust in traditional institutions



Unvaccinated girl, age 9

"If your mother tells you (to get vaccinated) it is because your mother wants the best for your life".

### Association of HPV with sexuality



Girl with one doses, age 15

"Because it is a sexually transmitted disease, people avoid talking about it"

### The vaccine as an act of care



Mother of girl one doses, age 41

"I did it (vaccinate the daughter) first of all, to protect my daughter's life"

### Respect for the personal decision to be vaccinated



Father of girl one doses, age 53

"I think there must be free will there. Not only from parents, since at a certain age, young people make decisions regarding their bodies, and I think that it should not be mandatory"

### The impact of COVID-19 on the conception of HPV



Unvaccinated girl, age 9

"Well, I think it (HPV) is transmitted like when you cough on someone or if you are with that person a lot, the virus passes to you or something like that"

## CONCLUSION

Capability, in lack of information about the vaccine, and motivation, in concern about vaccine safety, are related to HPV vaccine hesitancy in Colombia. Addressing these behavioral barriers, as well as increasing opportunity for vaccination would decrease HPV vaccine hesitancy.

## ACKNOWLEDGEMENTS

IBTN Summer School 2021