

## Childhood Immunizations in the Philippines Stella Brothers

Childhood immunization is critical in low-income countries like the Philippines, where the rapid spread of infectious diseases in densely populated, poverty-stricken areas is a serious public health risk. The Philippines Childhood Immunization Schedule, which includes vaccines for measles, polio, and other pressing diseases, is based on the latest scientific data and research (*Figure 1*).<sup>1</sup> However, despite the availability of these routine vaccinations for children ages 0-1 that are administered in local barangays (small territorial or administrative districts), UNICEF reports a 25% decline in public trust for vaccines since the pandemic.<sup>2</sup> This decline poses a significant public health threat as it may result in lower vaccination rates and potential outbreaks of preventable diseases.

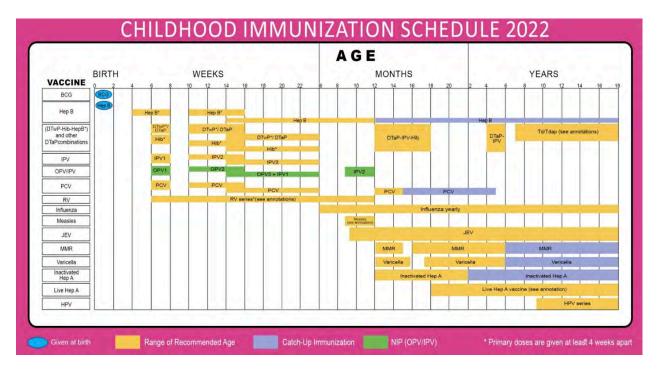


Figure 1 - Childhood immunization schedule

The increasing vaccine hesitancy can be attributed to social trauma, cultural factors, misleading information, and doubts stemming from past vaccinations<sup>3</sup>. Among these factors, the cultural mindset, stemming from an expression of Catholic values, of "*bahala na*" – translated to "*whatever happens*, *happens*" – often leads to individuals underestimating their risk of illness and overestimating their overall health, diminishing the perceived need for vaccination<sup>4</sup>. For example, during the COVID-19 pandemic, this mindset led many Filipino adults to

<sup>&</sup>lt;sup>1</sup> "Guidelines & Policies."

<sup>&</sup>lt;sup>2</sup> "Vaccines for Children."

<sup>&</sup>lt;sup>3</sup> Vergara, "Social Trauma as a Contributory Factor in Filipino's Vaccine Hesitancy."

<sup>&</sup>lt;sup>4</sup> Cleofas and Oducado, "Demographic, Health and Pandemic-Related Determinants of COVID-19 Vaccination Intention Among Filipino Emerging Adults."



underestimate their risk of illness and resist immunizations, partly due to a persisting distrust in vaccines. This distrust was exacerbated by the Dengvaxia controversy, where it was revealed that the vaccine increased the risk for an extremely severe form of the disease<sup>5</sup>. This controversy not only highlighted gaps in public health communication but also intensified public mistrust as many felt misled by health authorities. This controversy continues to fuel public mistrust, a situation only compounded by low health literacy and comprehension across the Philippine educational system. This is rooted in two types of literacy: basic literacy - the ability to read and write - and the ability to contextualize society.

Despite high literacy rates in the Philippines, ranging from 97.89% to 99.27% over the past decade, these numbers primarily reflect the ability to read and write basic statements about daily life rather than deeper comprehension skills necessary for understanding complex information<sup>6</sup>. As a result, over 90% of children still struggle with reading comprehension - meaning many lack the deeper skills essential to understanding critical and complex information<sup>7</sup>. Given that 51.5% of adults demonstrate low health literacy, this poses a significant challenge to public health, as many struggle to comprehend health information such as vaccine schedules, medical instructions, and preventable health measures<sup>8</sup>.

Unlike better-funded private schools, public schools struggle with insufficient resources, directly impacting the development of critical thinking skills; this leads many more to be susceptible to misinformation surrounding vaccines. The Philippines uses 3.6% of its Gross Domestic Product (GDP) on education compared to the United States, which uses 5.44%, meaning that public school teachers earn an average of only 25,000₱/month (\$444.45)<sup>91011</sup>. The low salaries of public school teachers contribute to large class sizes and a lack of educational resources, making it difficult to teach skills beyond fundamental reading, writing, and arithmetic. These educational shortcomings are reflected in the Philippines' last-place ranking in the PISA (Program for International Student Assessment) exam, where students are tested on reading comprehension necessary for civic participation, including healthcare decisions<sup>12</sup>. Along with the underfunded educational system, as many as 5 million Filipino children are still living in poverty, and 18.6% of children are not attending school, further hindering the development of comprehension skills<sup>13</sup>.

Visual aids have been effectively utilized in public health campaigns in the Philippines and have been pivotal in educating individuals on preventing highly contagious diseases. For example, during the COVID-19 pandemic, a Facebook page called "Family Smarts Keep COVID Away" was launched, gaining over 160 million followers by presenting information in simple and

<sup>&</sup>lt;sup>5</sup> Brackstone et al., "COVID-19 Vaccine Hesitancy and Confidence in the Philippines and Malaysia."

<sup>&</sup>lt;sup>6</sup> "Literacy Important for PH Development."

<sup>&</sup>lt;sup>7</sup> Chi, "Explainer."

<sup>&</sup>lt;sup>8</sup> "Prevalence of Limited Health Literacy in the Philippines: First National Survey | HLRP: Health Literacy Research and Practice."

<sup>&</sup>lt;sup>9</sup> "PBEd | PBEd Statement on Education Budget in the 2025 General Appropriations Bill."

<sup>&</sup>lt;sup>10</sup> Fournier, "The US Spends a Lot on Education—but We Don't Know Enough About How It's Spent."

<sup>11 &</sup>quot;Salary."

<sup>12 &</sup>quot;Quality Education."

<sup>&</sup>lt;sup>13</sup> "5M Filipino Kids Lived in Extreme Poverty in 2022 — UN Report - BusinessWorld Online."



culturally relevant visual forms<sup>14</sup>. This campaign communicated critical prevention measures – such as handwashing, social distancing, and mask-wearing – through a conversational and visual manner (*Figure 2*), encouraging families to make critical health-related decisions<sup>15</sup>. Public health campaigns with visual aids are essential in the Philippines, where health literacy is below average, as they make complex health concepts – such as safety and disease progression – more accessible even for those with limited access to critical thinking education.



Figure 2 - Family Smarts Keeps COVID away campaign

The decline in vaccination confidence is mainly fueled by different cultural mindsets, misinformation, and gaps in health literacy, presenting a serious threat to public health. Cultural beliefs such as the *bahala na* attitude encourage individuals to accept their fate, reflecting a broader issue of health fatalism. This attitude stems from the Catholic faith of many Filipinos, who believe their fate is in God's hands. However, this diminishes the perceived importance and urgency of preventative health measures and interventions like vaccines. This perspective, coupled with the lasting damage from the Dengvaxia controversy, leads many in positions of authority to severely undermine public trust, making it difficult to combat misinformation. At the root of this issue, however, is the Philippine educational system, which fails to equip students with critical thinking skills. This leaves individuals vulnerable to misleading health information, further compounding the effects of the *bahala na* mindset and past vaccination controversies.

Similarly to the Philippines, India struggles with high poverty rates, as well as an underlying issue of comprehension, with 60.4% of individuals demonstrating low health literacy levels<sup>16</sup>. However, there have been many successful signage campaigns that play a crucial role in simply conveying important information. For example, India was certified polio-free in 2014,

<sup>&</sup>lt;sup>14</sup> Desmon, "Successful COVID Campaign in Philippines Wins Accolades."

<sup>&</sup>lt;sup>15</sup> Desmon.

<sup>&</sup>lt;sup>16</sup> "Health Literacy among Indian Adults Seeking Dental Care - PMC."



by virtue of a polio eradication campaign that used signage to not only inform citizens about polio vaccination camps but also to guide parents to get their children vaccinated<sup>17</sup>. While India successfully eradicated polio, the Philippines' additional challenges to public health literacy and management were highlighted by the COVID-19 pandemic, which included the spread of misinformation. Although both countries continue to grapple with this underlying issue, India's successful polio eradication serves as a powerful example of what can be achieved for the future of the Philippines.

Visual aids can bridge the knowledge gap by simplifying health information, being culturally tailored, and making it more accessible to people with low literacy. By using visuals for information, the need for high literacy rates to disseminate critical information is lessened. To address vaccine hesitancy in the Philippines, both now and in the future, a strong effort should be made to utilize visual aids to rebuild trust in the public health department. Visual aids can effectively counter misinformation by presenting accurate and simple information about vaccine safety. This can be achieved through national public health campaigns specifically in conjunction with educational reforms, which together can create a more informed and health-conscious society. By tailoring these visual aids to reflect cultural context and delivering them through national public health campaigns, it can effectively reach communities that are otherwise skeptical of vaccines. In addition, by focusing on critical thinking skills in schools, future generations will be able to understand complex health problems, ultimately resulting in an overall increased health literacy rate.

<sup>17 &</sup>quot;INDIA."



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