

# Willingness to Donate to a Non-government COVID-19 Vaccination Initiative



**Nelson Matthew P. Tan<sup>1</sup>, Rosalina Palanca-Tan<sup>2</sup>**

<sup>1</sup> Applied Math in Economics major, Harvard University

<sup>2</sup> Professor, Ateneo de Manila University

COVID-19の感染予防対策でワクチン接種を推進するにあたり、フィリピンでは民間NGOが人材面などで政府に協力している。本稿では、こうした団体に対して自発的かつ利他的に寄付している人たちの属性を検証した。

## Abstract

Vaccination is considered to be an effective preventive and long-term control measure for the COVID-19 pandemic and its negative economic consequences. Up to October 2021, vaccination coverage in the Philippines was just about 25%. Budget and government inefficiency issues pose serious challenges in the implementation of a timely and far-reaching vaccination program for the whole country. This calls for some non-government initiatives in administering and distributing the vaccine. NGOs have the potential to mobilise manpower and coordinate with private hospitals, clinics, pharmacies, and manufacturers to augment and improve the implementation of the government vaccination program. But the scope and extent of NGO assistance and support are dependent on the amount of donations these NGOs receive for their initiatives. This paper looks into the viability of non-government vaccination initiatives in the Philippines by asking Filipinos' willingness to donate to such initiatives in a contingent valuation survey format. Survey results indicate that about half (56.83%) of respondents are willing to make an average lump-sum donation of PhP8,978. Regression analysis reveals that older individuals are more likely to donate, and that the amount of donation increases with income. Further, although married respondents are less likely to donate, the average size of donation of a married donor is higher. The results mirror the inherent capacity of Filipinos for altruism and mutual support in times of crisis.

## Keywords

altruism; covid-19 pandemic; vaccine; stated willingness to donate; determinants of charitable giving

## Introduction

The COVID-19 pandemic has caused unprecedented socioeconomic devastation and a global health crisis. In December 2019, the disease emerged from Wuhan, China, and one of the first documented exported cases was found in Thailand on 13 January 2020. Less than a month after, outbreaks in ocean liners and person-to-person transmission on other forms of worldwide transportation occurred (Wu, Chen, and Chan 2020). On 6 February 2020, the World Health Organisation (WHO) documented 28,276 confirmed cases and 565 deaths in at least 25 countries (WHO 2021). In less than a year, the COVID-19 pandemic was linked to over a million

deaths (Ioannidis 2020).

The damage due to the pandemic extends beyond the illness and death resulting from the viral infection. Health system disruptions leading to more losses of human life and large-scale poverty have been amplified by the pandemic (Pley, McNaughton, Matthews, and Lourenço 2021). Many government measures geared towards limiting the spread of COVID-19, particularly nation/state-wide and city lockdowns, have contributed to the destabilising effects of the pandemic. Aggressive COVID-19 lockdowns have exacerbated unemployment, eliminating income sources and pushing countless underprivileged families to starvation (Ioannidis

2020). According to a joint statement by the International Labour Organisation (ILO), the Food and Agriculture Organisation of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), and the WHO, “tens of millions of people are at risk of falling into extreme poverty, while the number of undernourished people, currently estimated at nearly 690 million, could increase by up to 132 million” by 2021. In addition to challenges posed on global food systems and employment conditions, the pandemic has disrupted vaccination schedules for other infectious diseases and has potentially contributed to the recurrence of these diseases (Ioannidis 2020).

In the developing world, such as the Philippines, the impacts of COVID-19 on economic life and public health have been severe. Countries lacking universally accessible healthcare and facing drastic increases on health spending are likely to face economic contraction and recession (World Bank 2020). A study by Pley, McNaughton, Matthews, and Lourenço (2021) argues that the pandemic is “amplifying existing economic and public health inequalities.” Some of the most vulnerable groups to this form of inequality are informal economy workers and the agricultural sector. These groups lack social and labour protection, access to quality healthcare, and now the ability to earn from markets due to confinement measures and restrictions. As livelihoods are at risk, these people are forced to find work in unsafe conditions, sell assets in distress, or resort to predatory loans (WHO 2020). Since 38.3% of employed individuals in the Philippines are in vulnerable forms of employment and/or are part of the informal economy (ILO 2020), the country is especially vulnerable to the socio-economic disruption and public health crisis of the pandemic.

As highly aggressive and disruptive measures such as lockdowns may continue to drain household income, deplete resources, and hinder pandemic recovery, a comprehensive vaccination program is a more favourable option in dealing with the COVID-19 crisis (Ioannidis 2020). Vaccine distribution is even deemed to be more viable compared to non-disruptive measures such as disinfection, masks, and contact-tracing (Fadda,

Alabanese, and Suggs 2020). However, the Philippine government vaccination program has suffered significant delays due to inefficiencies in securing supply and concluding deals with most major manufacturers of COVID-19 vaccines. For instance, the Philippine government struggled to guarantee 161 million doses for its vaccination program with one of the latest hurdles being the delay of 117,000 doses of Pfizer vaccines in February 2021 (Aspinwall 2021) and 525,600 doses of AstraZeneca’s vaccine in March 2021 (Lema and Morales 2021). Moreover, since distributing vaccines with a national-level program can be a significant financial burden on the limited Philippine government budget, private sector actors such as non-governmental organizations (NGOs) can play a significant role in administering and distributing the vaccine. NGOs and the private sector have the potential to mobilise manpower and coordinate with private hospitals, clinics, pharmacies, and manufacturers to augment and improve the implementation of the Philippine vaccination program (Reliefweb 2020). With funding, NGOs and other non-profit private actors may procure vaccines, medical supplies and peripheral support for frontline health workers such as meals, transport, and temporary shelter, which may vastly improve vaccination in the Philippines (Give2Asia 2021). But the scope and extent of NGO vaccination initiatives are dependent on the amount of donations these NGOs and other non-profit organizations receive for their initiatives (Choi and DiNitto 2012).

Hence, this study assesses support for a non-government COVID-19 vaccination program in terms of voluntary monetary contributions from the people. The study will explore how much people are willing to donate for this program and what factors influence their decision to donate and the amount they give. Information and analysis of the characteristics of potential donors and their motivations as well as their capacity and constraints for altruistic behavior are relevant inputs for developing strategies for fund-raising activities for an NGO vaccination initiative. Although there has been extensive literature on the characteristics of prospective donors, the particular context and culture, as well as current

circumstances affect people's charitable giving behavior and decisions, thus, making this study in the context of the Covid-19 pandemic imperative.

## Conceptual Framework and Methodology

In a study by Araña and León (2002), it is argued that altruism can have a positive impact in reducing public health risks such as the flu. However, a contribution towards a vaccine program may not be purely altruistic as increased vaccination rates can prove valuable to the donor. Support for having a robust and effective vaccination program may also come from the motivation to free ride from the positive externality of a vaccinated community (Hershey et. al 1994). This is a form of impure altruism wherein the donors themselves benefit directly from the program, or they derive some utility or “warm glow” from the act of giving (Andreoni 1990). The model of impure altruism is thus a more accurate representation of donation to a COVID-19 vaccination program since donors may be concerned about ending the pandemic and their own personal safety.

Questions about altruism and generosity go back to the founding fathers of economics and sociology such as Adam Smith (1976 [1759]) and Auguste Comte (1973 [1851]). In most of recent literature, the willingness to donate or charitable giving is defined as the “voluntary donation of money to an organisation benefiting others beyond one's own family”; and this willingness, a form of altruism, can be influenced by the person's awareness of the need, the exposure to solicitation, the costs and benefits associated with donation, reputational impacts, psychological benefits of contributing, and the efficacy of the program receiving the funding (Bekkers and Wiepking 2011). These mechanisms that drive charitable giving are used to support hypotheses regarding the characteristics of givers. For instance, individuals with higher education are more likely to be donors because (1) they have greater awareness of needs that give them a greater sense of social responsibility, (2) they have higher level of exposure to information that enable them to assess the efficacy and efficiency of the charitable organizations, and (3) they receive more solicitation

requests due to more memberships in organizations.

Bekkers and Wiepking (2011 and 2012) reviewed and summarized the extensive empirical literature on charitable giving, suggesting that the “typical” donors are older, more educated, have more income and wealth, own a house, are married and with children, and have prosocial personality characteristics such as empathy. They, however, found mixed evidence on gender, race, and political preferences.

In this paper, two indicators of charitable giving were used: (1) decision or willingness to give or donate and (2) the level of giving or amount of donation. Data used for the analysis were obtained from a survey conducted in April-May 2021 by college students of Statistics at the Ateneo de Manila University. A sample of 539 respondents was generated following a snowballing approach in online platforms such as email and facebook.

A two-stage regression procedure was undertaken to identify the willingness to contribute and the amount of contribution of Filipinos to a non-government covid-19 vaccination program to ensure a timely and widespread vaccination coverage particularly for the most vulnerable low-income communities in the country. The first stage was a binary logit regression model specifying the decision or willingness to contribute as a function of individual and household characteristics. In the second stage, the amount of donations of the sub-sample of respondents who are willing to donate were regressed with donor characteristics using ordinary least squares (OLS). The econometrics software STATA was used to run these regression models.

## Results

Table 1 presents the socio-demographic and economic profile of respondents. The average respondent is 39 years old. Respondents are almost equally divided between male and female. Majority (79%) of respondents have reached tertiary (college) education. Just a little over half (54%) resided in Metro Manila at the time of the survey, while the majority (72%) are Catholic. More than half (57%) of the respondents are married and a higher proportion (88%) have child dependent/s in the

household. Respondents' average monthly income is PHP 68,414 (USD1,368). About 63% of respondents own the house where they currently reside.

**Table 1. Respondents Profile**

	Mean/Std deviation or proportion of all respondents
Age	39.3 years/12.5 years
Gender – male	49.7%
Education – with	
Elementary	0.2%
High School	8.0%
College	78.8%
Post-college	13.0%
NCR resident	54.4%
Catholic	71.6%
Monthly income	PHP68,414/PHP65,204
With own house	63.1%
Marital status	
Married/with partner	56.6%
Single	39.5%
Separated	2.2%
Widow	1.7%
With child dependent/s	87.9%

Answers to questions related to Covid-19 vaccination are summarized in Table 2. About 29% of the respondents have at least one member in the household vaccinated for Covid-19. A substantial 72% of respondents (388 out of 539) are willing to purchase Covid-19 vaccine/s for oneself and household members if vaccines become commercially available. Of those not willing to purchase covid-19 vaccines, the majority (51%) think that the government must provide the vaccine for free to everyone, and the remainder indicated they are “afraid of vaccines” (27%) or they “do not have sufficient funds to buy the vaccine” (22%) as the major reason.

**Table 2. Covid-19 Vaccination**

	Proportion
With Covid-19 vaccinated household members	28.8%
Willing to purchase the vaccine	72.0%
Reason for not purchasing the vaccine	
1. No sufficient funds to buy the vaccine	22.1%
2. Afraid of vaccines	27.2%
3. Government must provide the vaccine for free to everyone	50.7%
Willing to donate/contribute for an NGO vaccination program	64.5%
Amount of donation	
Mean	PHP8,978
Std deviation	PHP23,462
Reasons for not donating	
1. No sufficient funds to donate	38.3%
2. Government must provide free vaccines for those who cannot afford	61.7%

Respondents who are willing to purchase the vaccine were asked if they would be willing to donate to a non-government vaccination program for vulnerable low-income communities to ensure a speedy and comprehensive vaccination nationwide. Only 245 (64.5% of the 380 respondents who replied to the question) expressed willingness to make a one-time lump-sum contribution. On the average, each prospective donor is willing to contribute PHP8,978 (US\$180). The standard deviation of the amount of donation (PHP23,462 or US\$469) is much higher than the mean contribution amount, reflecting the very wide range of donation amounts stated by respondents. This may be due partially to the wide-ranging financial capacities of those who are willing to contribute.

Majority (62%) of respondents who are not willing to contribute to the vaccination program think that it is government's responsibility to provide free vaccines to those who cannot afford. Only 38% of those not willing to donate indicated lack of financial resources to donate as the primary reason.

Answers to questions about the Community Pantry initiative that has sprung in the midst of economic difficulties experienced by the vulnerable poor in the country reflect recent history of altruistic behavior of respondents as well as their awareness and opinions of

the pandemic efforts of the government and its efficiency (to serve as proxy variables for respondent's trust and confidence in the government), which will be used in the econometric model of predictors of charitable giving undertaken in this paper. Table 3 summarizes the respondents' answers. Almost all respondents (95%) have heard about the community pantry. The very few who have not heard are likely from areas outside Metro Manila that have not been reached by the movement at the time of the survey. While 22% of respondents have contributed goods to the pantries, only 6% have received goods from the pantries, indicating that the sample's study consists more of benefactors than beneficiaries, as likewise reflected in the high mean income of respondents reported earlier in the paper.

**Table 3. Community pantry: Altruism and government trust**

Awareness and exposure	Proportion of respondents		
Have heard about the Community Pantry	95.1%		
Have contributed goods	6.2%		
Have received goods	23.3%		
Statement	Agree	Neutral	Disagree
(1) The Community Pantry addresses the inability of the government to provide assistance during the extended community quarantine.	69.4%	21.3%	9.3%
(2) The community pantry project reflects the lack of trust and confidence of the Filipinos in the government.	43.2%	33.8%	23.0%

Responses to the two opinion statements on the Community Pantry initiative reveal a rather diverse view of the efficacy of the Philippine government in responding to the needs of the people during the covid-19 pandemic. Respondents are almost equally spread over agreeing, being neutral and not agreeing with statement (2): the community pantry's reflecting the lack of trust and confidence of Filipinos in their government, with a third of respondents indicating neutral and with only a 10 percentage-points difference between the proportions of those who agree and disagree. However,

with regards to statement (1), there is a much greater proportion of respondents, almost 70%, who agree, implying the preponderance of perceptions of inability of the current administration to adequately provide pandemic assistance.

#### *Predictors of charitable giving.*

Table 4 summarizes the results of the binary logit regression run that identifies the likely characteristics of prospective donors to a non-government vaccination program. Only three variables turn out to be statistically significant.

Respondents who are married and have child dependent/s are less likely to donate. This is in contrast with the literature review of Bekkers and Wiepking (2011) which concluded that "typical" donors are married and with children. We contend that our results may be reflecting the extra-ordinary circumstances of this time – the severeness of the current economic difficulties inflicted by the pandemic on Philippine households. Due to economic uncertainties, individuals who have families to take care of are more cautious and hence less willing to take on additional expenses. Further, Andreoni, Brown, and Rischall (2003), arguing that donation may also be a household decision and not simply an individual decision, found that married households tend to bargain over both which charity to donate to and the amount of donation, with bargaining reducing the amount of gift or donation by around 6%.

The third significant variable in this study is past acts of giving, proxied in this paper by contribution to the Community Pantry effort. The study finds that those who have contributed to the community pantries are more likely to donate as well to a non-government vaccination initiative.

Our first-stage binary logit regression results reveal that age, gender, education, asset ownership (particularly, house ownership), current place of residence (particularly, being a resident of National Capital Region where the covid-19 pandemic is most severe), and having or not having trust in the government do not influence Filipinos' decision to contribute or not to contribute to a non-government vaccination program. It appears that

the perceived need for a timely and widespread vaccination transcends socio-demographic factors in giving, and even political inclinations (trust in the current administration), except for current economic constraints (respondents who are married and/or with child dependent/s face).

**Table 4. Willingness to contribute to the covid-19 vaccination program, Binary logit regression**

Explanatory variable	Coefficient
Age	0.0162
Gender	-0.0298
Education	0.1210
Married	-0.5943*
WithChildDependents	-0.4110*
WithOwnHouse&Lot	0.2445
CommunityPantryContributor	0.6460**
GovernmentTrust	-0.0565
NCRresident	-0.3460
No of observations	367
Log likelihood	-228.7297
LR chi2	15.95

Asterisks after coefficients denote level of significance: \* for 0.10, \*\* for 0.05, and \*\*\* for 0.01.

OLS regression results (Table 5), on the other hand, reveal that the amount of donation significantly increases with income. Specifically, our result suggests that a respondent whose monthly income is higher by PHP1,000 would contribute PHP120 more. Married respondents' contribution is lower by PHP9,675 compared to unmarried respondents. This is consistent with Andreoni, Brown, and Rischall (2002) which found that bargaining between spouses reduced the amount of donation.

**Table 5. Amount of contribution, Ordinary least squares**

Explanatory variable	Coefficient
Income	0.1235***
Age	233.22
Gender	1500.80
Married	-9674.53***
Constant	-5133.97
No of observations	228
F-stat	10.33
Adj R2	0.1412

Asterisks after coefficients denote level of significance: \* for 0.10, \*\* for 0.05, and \*\*\* for 0.01.

As in the case of the decision to donate, the socio-demographic variables - age and gender - have no statistically significant influence on the amount of contribution to a covid-19 vaccination program.

## Conclusions

This study assesses the viability of a non-government vaccination program that depends on people's voluntary donations. Using a contingent valuation survey format, Filipino respondents were asked if they would be willing to donate to such a non-government vaccination initiative, and respondents who answered "yes" were asked to state a one-time lump-sum contribution they would be willing to make. Survey results mirror the inherent capacity of Filipinos for altruism and mutual support in times of crisis. More than half (56.83%) of respondents are willing to make a lump-sum donation, and on the average, each prospective donor, would contribute about PhP8,978.

Regression analyses were conducted to identify the factors that influence the decision to contribute to the non-government vaccination initiative in the Philippines. It appears that in this time of economic difficulties and high economic uncertainties due to the Covid 19 pandemic, the main constraints to charitable giving are households concerns and responsibilities, in addition to current income, rather than people's demographic and socio-economic backgrounds. Our findings do not conform with the "typical" donor characteristics – older, more educated, married and with children, having more wealth, and owning a house – found in previous literature surveyed and summarized by Bekkers and Wiepking (2011 and 2012). Instead, we found that respondents who have spouses and dependent children to worry about in this Covid 19 pandemic-induced economic crisis and uncertainties are less likely to donate.

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