2021

YOUTH VACCINE TRUST GLOBAL REPORT

Health and Information Literacy Access

#MoreViralThanTheVirus

Cover Photo by Ivan Diaz on Unsplash.

August 2021

YOUTH VACCINE TRUST GLOBAL REPORT

EDITORIAL AND PUBLISHING POLICY

This report uses the United Nations Editorial Manual (Sales No. E.83.I.16) style for writing, proofreading, editing and publishing.

TABLE OF CONTENTS

LIST OF ACRONYMS

AU OYE	African Union Office of Youth Envoy
BBC	British Broadcasting Corporation
CNN	Cable News Network
COVID-19	Coronavirus Disease of 2019
CYHN	Commonwealth Youth Health Network
EMR	Eastern Mediterranean Region
EVD	Ebola Virus Disease
GAPMIL	Global Partnerships for Media and Information Literacy
GEN Y	Generation Y
GEN X	Generation X
HIC	High income
HILA	Health and Information Literacy Access Alliance
IADS	International Association of Dental Students
IPSF	International Pharmaceutical Students' Federation
IFMSA	International Federation of Medical Students' Associations
LIC	Low Income
LMIC	Lower Middle Income
MIL	Media and Information Literacy
MILEN	Network of Media and Information Literacy
MVTTV	Movement #MoreViralThanTheVirus
NGO	Non-Governmental Organization
NYU	New York University
PPE	Personal Protective Equipment
PROEPI	Field Epidemiology Professionals Network

SARS	Severe Acute Respiratory Syndrome
SDG	Sustainable Development Goals
SUS	Sistema Único de Saúde [Brazilian Universal Health System]
UFU	Universidade Federal de Uberlândia
UK	United Kingdom
UMIC	Upper Middle Income
UnB	Universidade de Brasília
UNCA	United Nations Cuban Association
UNDP	United Nations Development Program
UNESCO	United Nations for Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNMGCY	United Nations Major Group for Children and Youth
USA	United States of America
WHO	World Health Organization
YABONG	Youth Advocates Building Opportunities and Network in Governance

TEAM

A Project Coordinators

Dr. Beatrice Bonami [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Ian Soh [Movement #MoreViralThanTheVirus]

B Authors

Dr. Beatrice Bonami [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Sheena Choudhary [Social Rights Activism, India]
Alexandre do Amaral [MILEN Network, UNESCO MIL Youth Committee]
Erika Domínguez Agramonte [UNCA]
Bushra Ebadi [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Lucy Fagan [UN MGCY, CYHN]
Eglė Janušonytė [IFMSA, Vilnius University/Faculty of Medicine]
Caio Machado [Instituto Vero, University of Oxford]
Hera Mobeen Ali [IPSF]
Dr. Chiamaka Nwachukwu [AU OYE]
Ian Soh [Movement #MoreViralThanTheVirus]
Dr. Saad Uakkas [Moroccan Federation of Medical Student]
Dr. Mako Yokoyama [IADS]

C Survey Creation

Dr. Beatrice Bonami [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Alexandre do Amaral [MILEN Network, UNESCO MIL Youth Committee]
Bushra Ebadi [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Lahiru Elvitigala [Global Shapers Copenhagen Hub]
Lucy Fagan [UN MGCY, CYHN]
Dr. Chiamaka Nwachukwu [AU OYE]
Ian Soh [Movement #MoreViralThanTheVirus]
Dr. Saad Uakkas [Moroccan Federation of Medical Students]

D Editing

Dr. Beatrice Bonami [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Bushra Ebadi [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Caio Machado [Instituto Vero, University of Oxford]
Hera Mobeen Ali [IPSF]
Dr. Saad Uakkas [Moroccan Federation of Medical Students]
Dr. Mariana Ferreira Lopes [ProEpi / UnB]

E Data Analysis

Dr. Beatrice Bonami [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Dr. Pedro Frosi [UFU]
Shanzeb Khan [UNICEF, NYU]
Henrica Makulu [Global Shapers Harare Hub]
Ian Soh [Movement #MoreViralThanTheVirus]
Dr. Saad Uakkas [Moroccan Federation of Medical Students]

F Survey Translation

Arabic	Dr Saad Uakkas
French	Jeffrey Cherubin
	Charles-Antoine Barbeau Meunier
	Bushra Ebadi
Japanese	Dr Mako Yokoyama
Hindi	Nimra Fatima
	Sana Samreen
Mandarin	Chun Yin Benjamin Tsang
	Yi Ting Yu
	Tam Tsun Hong
	Wu Hei Yeung Jasper
	Matthew Chow
Persian/Farsi/Dari	Mohammad Yasir Essar
Portuguese	Dr Beatrice Bonami
Russian	Anna Rudkovska
Spanish	Anastasiia Rudkovska
	Ellie Rachheva
	Aida Sarymsakova
	José Andrés Padilla Villa
	Minerva Andrea Padilla Villa
	Michelle Cristina Navarro Díaz
	Dr Michelle Becerra Ibarra

G Survey Dissemination

Dr. Beatrice Bonami [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Alexandre do Amaral [MILEN Network, UNESCO MIL Youth Committee]
Erika Domínguez Agramonte [UNCA]
Priyanka Chahal [Tentishev Asian Medical Institute, Kyrgyzstan]
Bushra Ebadi [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Mohammad Yasir Essar [University of Afghanistan]
Lucy Fagan [UN MGCY, CYHN]
Dr. Mariana Ferreira Lopes [ProEpi / UnB]
Caio Machado [Instituto Vero, University of Oxford]
Naureen Naqvi [UNICEF]
Ian Soh [Movement #MoreViralThanTheVirus]
Eglė Janušonytė [IFMSA, Vilnius University/Faculty of Medicine]
Dr. Saad Uakkas [Moroccan Federation of Medical Students]
Dr. Mako Yokoyama [IADS]
Hera Mobeen Ali [IPSF]

H Design

Dr. Beatrice Bonami [HILA Alliance, UNESCO MIL Youth Ambassadorship]
Bushra Ebadi [HILA Alliance, UNESCO MIL Youth Ambassadorship]

Collaborators and Supporters

Dr. Sudha Balakrishnan [Office of UN SG Envoy on Youth]
Sharifah Norizah [Asian Youth Council]
Lahiru Elvitigala [Global Shapers Copenhagen Hub]
Kristeena Monteith [Talk Up Yout]
Annam Lodhi
Keith Andere [African Youth Commission]
Dun Oliver Abiera [YABONG]
Mohammad Yasir Essar [University of Afghanistan]
Teresa Oberhauser [AEGEE European Student Forum]
Kawsu Sillah [African Youth Commission]
Khaled Emam [UNMGCY]
Sameh Kamel [Arab Youth Platform for Sustainable Development]
Ishu Kataria [Young Professionals Chronic Disease Network]
Asharn Kossam & Ndifanji Namacha [Malawi National Youth Council]
Sharaf Boborakhimov [PMNCH]
UN Youth Envoy
WHO EPI-WIN
Commonwealth Youth Health Network
Vaccine Confidence Project
Instituto Vero
Students Against COVID
Mnemonicsmed [Instagram page]
Crazy.Medicine [Instagram page]

HASHTAGS

#COVIDYOUTHSURVEY

#VACCINETRUST

#COVAX

EXECUTIVE SUMMARY

Authored by Dr. Beatrice Bonami, Bushra Ebadi, Dr. Saad Uakkas, and Ian Soh

The COVID-19 pandemic calls on all of us to work together to ensure and realize our collective health, safety, and wellbeing. This pandemic is not only a health crisis impacting hospitals and research laboratories, but it is also amplifying and exacerbating the inequities and injustices systematically marginalized communities and individuals experience. There is growing recognition of the importance of systemic interventions, communication, and community-based support and mobilization in "flattening the curve", decreasing pressure and mitigating exposure to the harms experienced by frontline and essential workers, and saving lives. The decisions we make individually and as part of a collective not only impact our own wellbeing but that of our communities. What if these decisions were not informed by scientific evidence and instead shaped by disinformation, misinformation, and malinformation? What if the spread of the infodemic outpaces that of credible sources of information in communities? The spread of disinformation on vaccines is especially dangerous because it can decrease vaccine confidence and increase hesitancy. Lack of trust in and adherence to public health measures risks delaying resolutions to the pandemic.

The *Global Youth Vaccine Trust* project seeks to identify how youth around the world are making decisions about vaccinating against COVID-19. For that purpose, a survey was created in order to assess which factors and reasons contribute to individuals' decisions to take or not take the COVID-19 vaccine. Our survey was translated from English to Arabic, French, Japanese, Hindi, Mandarin, Persian/Farsi/Dari, Portuguese, Russian, and Spanish.

Our survey focuses on information and vaccine literacy among youth 18 to 30 years of age. This report aims to address the spread of misinformation and disinformation on vaccines among youth and better support youth in making informed decisions about whether to vaccinate or not. The survey was translated into multiple languages to ensure the inclusion of diverse survey respondents who may not be proficient in English, and enable more youth to voice their opinions and concerns as it relates to vaccines.

International organizations and experts agree that credible, accurate, and accessible information about COVID-19 vaccines is essential for public health and collective wellbeing. Without this information, it will be difficult, especially for marginalized individuals and communities, to make informed decisions regarding their health and safety, and that of their communities and families. How can a member of the Portuguese speaking minority in the Amazonian Rainforest know how to prevent the spread of COVID-19 or monitor themselves for symptoms if this information is not accessible in a language they understand? How can a community doctor in Chad decide if suspected patients should keep attending surgery if they do not have access to best practices and information related to COVID-19? How can someone who speaks Arabic in a remote Jordanian community decide on whether to engage in social distancing if they have only heard that COVID-19 is a hoax?

While youth confidence in vaccine development against COVID-19 varies across countries with different income-levels, the general trend in the global sample of youth indicated high levels of confidence, with only 8% of youth expressing disagreement with the statement that they are confident in sanitary measures to respond, manage and address the COVID-19 pandemic.

COVID-19 is magnifying and amplifying existing inequalities and access issues. Tackling these issues will require short- and long-term actions to address information inaccessibility, media and information literacy, and structural barriers that expose marginalized communities to greater risk in the face of crises, such as pandemics, conflicts, and climate disasters. The information gulf widens daily as scientists provide up-to-date guidance and advice which does not reach millions of people worldwide.

Our survey focuses on information and vaccine literacy among youth 18 to 30 years of age. This research project aims to address the spread of misinformation and disinformation on vaccines among youth and better support youth in making informed decisions about whether to vaccinate or not. The survey was translated into multiple languages to ensure the inclusion of diverse survey respondents who may not be proficient in English, and enable more youth to voice their opinions and concerns as it relates to vaccines. The survey is anonymous and we have no means to get in touch with participants.

To create survey questions, we analyzed existing surveys and research on youth, COVID-19 vaccines, and infodemiology (disinformation, misinformation, etc.). We compared research and findings on youth to non-youth answers in order to identify and understand any differences that may exist between these demographics.

The *COVID-19 Youth Vaccine Trust* survey (herein referred to as "the survey") received 11,567 total responses from all age groups. Out of these, 10,026 were aged 30 and below and residing in 145 countries across 6 regions. Of these, 55.27% were female and 44.73% were male. 78 countries had 5 or more respondents aged 30 or below with a total of 9,897 respondents. This report focuses on responses from youth below 30 years of age from countries with 5 or more respondents.

Overall, our survey demonstrates general support for and trust in vaccines as a global trend among youth respondents. While youth confidence in vaccine development against COVID-19 varies across countries with different income-levels, the general trend in the global sample of youth indicated high levels of confidence, with only 8% of youth expressing disagreement with the statement that they are confident in sanitary measures to respond, manage, and address the COVID-19 pandemic. We also observed that young people largely believe in the success of vaccines and indicate that it is very likely they would take the vaccine, with youth respondents in the Americas region reaching as high as 85% indicating they are very likely to take the vaccine. This is a significant finding, especially in light of the reported refusal of the general population to get vaccinated in some countries. This promising data may indicate the willingness of youth to take the vaccine once it is readily available for them.

It is important to note that youth respondents from Brazil, UK, India, Americas, and Europe indicated their interest in taking the vaccine as soon as possible. In comparison, a significant proportion of youth respondents from Western Pacific and Middle East indicated a desire to wait 3 to 12 months before taking the vaccine. In Africa and South-East Asia, there is a balanced proportion of youth who express confidence in COVID-19 vaccines, with 33% willing to take the vaccine as soon as possible and 35% wishing to wait 3 to 12 months before taking the vaccine. It is concerning that youth in many countries in Latin America, Africa and SouthEast Asia are experiencing poor supply, poor uptake, or slow roll-out of the vaccines.

The following report aims to identify and explain global and regional trends in youth vaccine trust, with recommended actions for addressing hesitancy and distrust, including further surveys and studies in especially hesitant geographies.

When we compared those who believe in (the efficacy) of vaccines to those who do not in our global sample, we found that respondents resistant to the idea of a vaccine were primarily influenced by two factors in their decision to take the vaccine: the mechanism of the vaccine and the length of vaccine clinical trials. Furthermore, youth from our global sample identified celebrities and influencers, the national government or health authority, and friends and family as the least trusted sources of information on vaccines.

OUR RESPONSE TO THE COVID-19 PANDEMIC

Authored by Dr. Beatrice Bonami, Bushra Ebadi, and Erika Domínguez Agramonte

For some of us COVID-19 has challenged our perception of life. It has revealed the gaps and inadequacies of our social, political, economic, and legal systems, impacting lives, livelihoods, and our collective wellbeing. It has also brought what is 'essential' into sharp focus for many; what many of us may have taken for granted; the embrace and shared moments with loved ones; enjoying a dance, music or theater show together; being able to go to school, keeping a job or helping a family member or friend in a case of an emergency; gathering to mourn our loved ones; and celebrating life in the seemingly mundane moments.

If before the pandemic we were hyper-connected on social networks or the Internet in general, the pandemic increased our reliance on technology as a means of communicating, working, learning, and connecting with each other - at least for those who were afforded reliable and quality Internet access. Many businesses had to reinvent themselves to stay afloat; educators had to create new tools and platforms to reach students; new forms of entertainment were developed - some of them specifically to tackle the increased anxiety during confinement; and social initiatives emerged to help the most marginalized members of our communities.

The increased time people are spending online and on multiple platforms contributed to the rapid spread of misinformation at unprecedented levels. People were eager to receive answers to what was happening. In the absence of reliable and accessible information, some took it upon themselves to provide answers. The convergence of these factors gave rise to an infodemic, a phenomenon that can be harmful to both general and mental wellbeing and health. The disinfodemic exists in parallel with the COVID-19 pandemic, each reinforcing the other.

Being infected with the virus remains a major concern for people today. A global survey conducted by IPSOS on COVID-19 Vaccine Confidence and Efficiency Perception found that in December 2020, the main perceived threats (75%) among worldwide citizens (between 18-74 years old) were: being diagnosed with COVID-19 in the next few months; not being able to pay one's bills; and not having a steady monthly income. In addition, from August to December 2020, the perception that governments are losing control over the COVID-19 situation increased.

However, this same study found that since 15 December 2020, vaccine acceptance has increased among respondents. Respondents affirmed that in order to increase the effectiveness of vaccination campaigns, governments need to to counteract anti-vaccination movements, which are encouraging people to not to vaccinate in their respective jurisdictions.

Knowledge and information literacy play important roles in how populations respond to and critically assess communications about COVID-19. It is also important to properly contextualize, localize, and culturally translate messages and to take into account collective memories about other recent infectious disease outbreaks. For example a study performed in Sierra Leone in March 2020 (Community Knowledge, Perceptions and Practices around COVID-19 in Sierra Leone: A Nationwide, Cross-Sectional Survey | BMJ Open, n.d.) found that 75% of respondents felt at moderate or great risk of contracting COVID-19 and a majority (70%) of women did not know you can survive COVID-19, compared with 61% of men. This means that only 35% of respondents knew that you can survive COVID-19, which may be a result of the experiences the population had during the Ebola Virus Disease (EVD) outbreaks in 2014.

Knowledge, therefore, requires information access and processes. This drives attention to the problem of misinformation, an issue also diagnosed by an IPSOS survey in December 2020, "Trust Misplaced? A report on the future of trust in media". During crises, media literacy enables people to discern what is real from what is fake. The survey found that people are roughly twice as confident in their own ability to spot what is real from what is fake (59%) as they are confident in the ability of others in their country (30%) to do so as well. While this result refers to the general population, specific concerns are likely to arise among particular demographics, such as youth (defined as 18 to 30 years of age in this report).

The COVID Youth Survey, conducted in July 2020, identified the top 5 most relied sources of information pertaining to COVID-19 for youth: the World Health Organization (48%), newspapers/electronic journals (48%), television news (42%), national health authorities (37%), and Facebook (24%). Youth around the world indicated that their most trusted sources for guidance pertaining to COVID-19 were WHO (77%), national health authorities (66%) and international health authorities (62%). Young people expressed feelings of tiredness (51%) and anxiety (42%) towards COVID-19 related information and news, with a general lack of interest (15%) and optimism (11%). The presence of excessive, constant, and overwhelming amounts of information on the pandemic can help explain these results.

This study (performed by the same coordinators of the COVID Youth Survey) aimed to assess youth's opinions and knowledge related to the pandemic, as well as the youth's willingness to get vaccinated against COVID-19. Coalitions of youth across generations (Millennials, GenX and GenZ) are

Knowledge and information literacy play important roles in how populations respond to and critically assess communications about COVID-19. It is also important to properly contextualize, localize, and culturally translate messages and to take into account collective memories about other recent infectious disease outbreaks.

playing important roles in transforming and shaping society. It is therefore necessary to better understand their positions and perspectives on key issues and meaningfully engage with them to co-create and co-lead solutions and interventions for the systemic challenges we are collectively facing.

Our research aligns with Agenda 2030, which seeks to strengthen universal peace and freedom through the eradication of poverty in all its forms and dimensions, including extreme poverty. This Agenda aims to bring together all stakeholders, including countries, in collaborative partnership to take bold and transformative steps to shift the world to a more sustainable and just path for people, planet and prosperity.

While all SDGs were considered when designing this research, the survey mainly focused on four SDGs:

- Goal 3: Ensure healthy lives and promote well-being for all at all ages.
- Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- Goal 10: Reduce inequality within and among countries.
- Goal 17: Revitalize the global partnership for sustainable development.

The survey also relates to: SDG 5 (Achieve gender equality and empower all women and girls), SDG 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation) and SDG 16 (Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels).

ABOUT VACCINE TRUST AND HESITANCY

Authored by Dr. Saad Uakkas, Lucy Fagan, and Bushra Ebadi

Vaccination is one of the most effective public health strategies in preventing the spread of infectious diseases and their subsequent impacts on human health. Vaccination efforts are currently underway in various countries around the world, and aim to curtail the spread of the COVID-19 pandemic, the largest pandemic of this century. Public confidence in vaccines is, and will continue to be, crucial to the success of immunization programmes worldwide. Key drivers of public confidence in vaccines have been identified as trust in the importance, safety, and effectiveness of vaccines, along with compatibility of vaccination with religious beliefs.

Vaccine hesitancy, defined as the delay in acceptance or refusal of vaccines despite availability of vaccine services, was named one of the top threats to global health in 2019 by the World Health Organization (WHO, 2019). Hesitancy has long been identified as a public health challenge which undermines universal vaccination coverage and thus infectious diseases prevention and control. A 2017/2018 report by WHO and CDC shows how vaccination hesitancy led to a resurgence of measles with many countries experiencing "severe and protracted" outbreaks. Hesitancy towards the COVID-19 vaccine has been reported among many individuals and communities, including youth and healthcare workers (A Dror et al, 2020; Deniz Salali et al, 2020). A multitude of factors may contribute to vaccine hesitancy, including the compulsory nature of vaccines, their coincidental temporal relationships to adverse health outcomes, a lack of awareness of vaccine-preventable diseases, and distrust in corporations, public health agencies, and political leaders.

Studies have been carried out to assess and evaluate people's knowledge, attitudes and practices towards COVID-19 and vaccines. Some of these studies have collected and analyzed data on vaccine acceptance levels in different countries (Dube et al., 2014; Sallam, 2021). A global Vaccine Acceptance Dashboard has been made to compile and openly share data with the public. The spread of false information or anti-vaccination messaging through social media may be a contributing factor in the rise of vaccine hesitancy, especially among younger people (Puri et al., 2020). According to UNESCO, more than half of the global population is under age 30, and 16% are between 15 and 24 years of age. With a dominating presence in social media, youth are vulnerable to negative messages and disinformation that may impact their vaccine acceptance levels. More data is

needed to better understand the influence of social media on vaccine acceptance among youth and to identify opportunities to address risk factors to improve vaccine trust and compliance.

Multiple studies attempted to assess youth's knowledge and uptake of vaccines in the past, including COVID-19 vaccines (Sallam et al, 2020). Fear of side effects, low risk perception, insufficient knowledge, and misinformation were among other factors impacting vaccine uptake. Most of these studies focused on specific groups and were conducted on a local scale or with a small population sample. A more comprehensive analysis is needed to understand young people's perceptions and perspectives on COVID-19 vaccines around the world and compare similarities and differences that may exist across different geographies and identities. This includes assessing young people's level of trust and interest in taking the COVID-19 vaccine and identifying the main sources of information, factors, and reasons shaping their attitudes.

In order to promote vaccine awareness and uptake among youth, it is crucial to consider and understand the factors influencing young people's decision-making and confidence in COVID-19 vaccines. The Global Youth Vaccine Trust survey noted that a majority of youth respondents indicated self-protection, protection of others, being a frontline worker or healthcare related student or worker, and national government and authority recommendations as primary reasons to get vaccinated. Addressing and centring these factors in vaccine campaigns and strategies could help increase vaccination rates among young people. It is also important to consider the factors contributing to vaccine hesitancy and tackle these through education and awareness campaigns created by young people for young people, a potential issue/topic to be explored in future research.

LINKS AND REFERENCES

FE Andre, R Booy, HL Bock, J Clemens. Vaccination greatly reduces disease, disability, death and inequity worldwide. Bulletin of the World Health Organization. Volume 86, Number 2, February 2008, 81-160

Larson HJ, Schulz WS, Tucker JD, Smith DMD. Measuring Vaccine Confidence: Introducing a Global Vaccine Confidence Index. PLOS Currents Outbreaks. 2015 Feb 25 . Edition 1. DOI: 10.1371/currents.outbreaks.ce0f6177bc97332602a8e3fe7d7f7cc4.

Salmon DA, Dudley MZ, Glanz JM, Omer SB. Vaccine hesitancy: Causes, consequences, and a call to action. Vaccine. 2015 Nov 27;33 Suppl 4:D66-71. doi: 10.1016/j.vaccine.2015.09.035. PMID: 26615171.

MATERIAL AND METHODS

Authored by Dr. Mako Yokoyama, Dr. Chiamaka Nwachukwu, and Dr. Beatrice Bonami

TEAM BUILDING

The first step in the creation of this survey was to put together a team of young leaders representing various youth networks, to brainstorm on questions which would elicit the information needed to achieve the objectives of the study. Specific efforts were made to ensure the inclusion and engagement of diverse actors based on geography, nationality, race and/or ethnicity, and language.

SURVEY QUESTIONS

Survey questions were created through discussion, review of existing literature, and input from team members who represented a diverse population of youth groups and communities. They were then articulated in a form in two sections. The first section focused on collecting demographic data and the second section focused on questions directly related to COVID-19 vaccines.

TRANSLATION

Text was translated into nine different languages from English: Arabic, French, Hindi, Japanese, Mandarin, Persian/Farsi/Dari, Portuguese, Russian, and Spanish.

TIME FRAME

The survey was open for a period of two months, from 24th November 2020 until 30th January 2021. The results were analyzed and the report was written between 20th February and 22nd April 2021. The report was designed and edited from 1st May 2021 to 8 July 2021.

DISSEMINATION

The dissemination strategy focused on contacting specific youth networks and organisations to share the survey with their respective networks. A dissemination pack containing promotional photos, key messaging and the ink to the survey, was sent to all participating organizations and networks

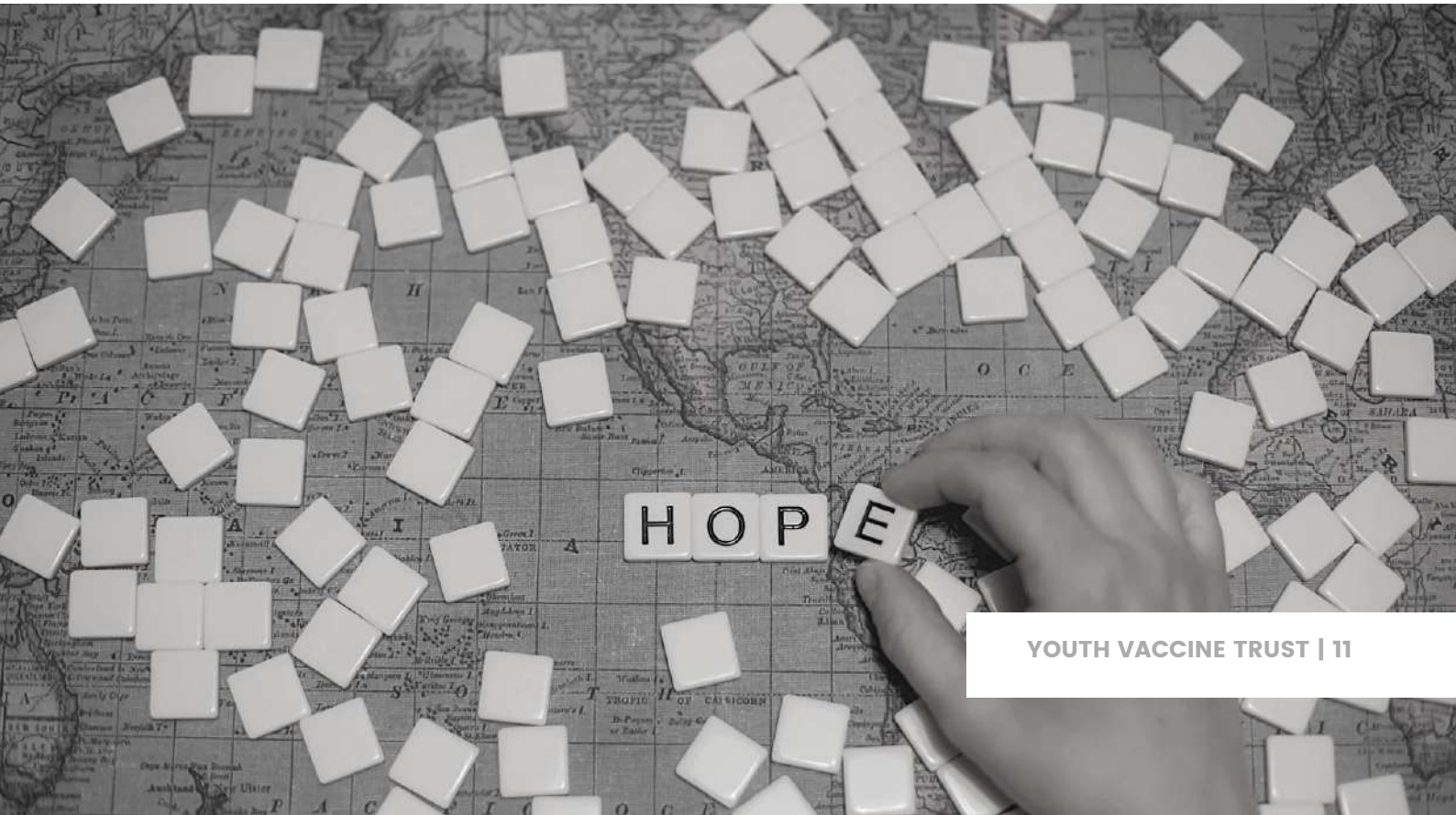
DATA ANALYSIS

There were a total of 11.567 responses from over 100 countries. The data was collected in Google Sheets through a Google Form. The data was analysed using Microsoft Excel and Python and presented and visualized in this report as charts and tables using Excel and AirTable. To analyze the data, it was first exported to Python Programming for data cleaning. After cleaning, preparation and initial analysis were conducted using Python and Microsoft Excel, where specific extractions were performed. Statistical methods were used to analyse respondents' demographic information as well as their sentiments using rating scales. This allowed for interpretation of the data, providing insights into the sentiments, behaviours and motivations of the respondents with a particular focus on the youth (defined in this case as respondents aged between 18 and 30 years).

GLOBAL AND REGIONAL ANALYSIS

Data extraction, analysis, and synthesis by Dr. Beatrice Bonami, Dr. Pedro Frosi, Ian Soh, Dr. Saad Uakkas, Shanzeb Khan, and Henrica Makulu

We collected 11.567 responses from approximately 100 countries. Only countries with more than 5 responses were considered in the sample. Therefore 83 countries were included for analysis in this study. Countries with more than 500 responses (Brazil, India, and the United Kingdom) were analyzed separately due to data weighting, in addition to the original regional/continental analyses. We considered youth 18 to 30 years of age inclusively. Table 2 presents a disaggregation of responses by region and/or country where applicable.



REGION OR COUNTRY	N OF COUNTRIES	N OF RESPONSES	%
Africa	14	439	3.79
Middle East	14	768	6.63
Europe	27	1.799	15.55
United Kingdom	1	1.210	10.46
Americas	14	837	7.23
Brazil	1	4.720	40.80
South East Asia	4	199	1.72
India	1	570	4.31
Western Pacific	8	869	7.51
Global*	83	11.411	98.65
Total count**	78	9.897	85.56
Total count***	145	11.567	100

Countries were divided into 6 regions following the WHO's regional groupings, namely Africa, Americas, Eastern Mediterranean (EMR or Middle East), Europe, South-East Asia, and the Western Pacific. Results were also analysed based on the World Bank's designation of countries' level of income: high income (HIC), upper middle income (UMIC), lower middle income (LMIC), and low income (LIC). The number of respondents per region are elaborated in Table 2. The number of respondents per income level is as follows:

INCOME LEVEL	RESPONDENTS	%
High income	3469	35
Upper middle income	4741	48
Lower middle income + low income	1687	17

*post-data cleansing.
** considering countries with 5 or more responses.
*** without data cleansing.

Regarding respondents' education level, 51% were in Bachelor or equivalent studies, 33% were in high school, 10% were in post-graduation or equivalent, 4% were in secondary school or equivalent, and 1% in other graduate studies. While the findings of this report are not fully representative of the perceptions of the billions of youth that live around the world [due to the small sample gathered for analysis], we believe it is indicative of youth's perspectives and opinions towards the COVID-19 vaccine.

In this section, we explore trends with reference to the following survey questions:

With a lot of resources, research and clinical trials invested in developing a vaccine for COVID-19, do you believe a vaccine for COVID-19 will be effective?

If a vaccine for COVID-19 is developed and made available to you, how likely are you to take it?

Please identify the reason(s) for your response to the previous question (please select your top 3 reasons).

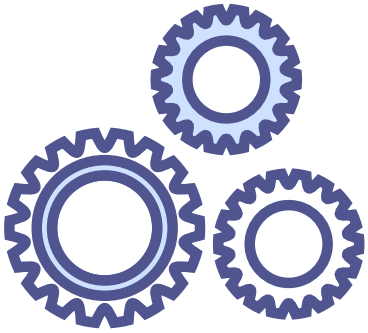
If the following information were made available, would you be inclined to take the vaccine?

In which timeframe would you be willing to take the vaccine?

With a vaccine do you feel more confident against COVID-19?

Who would you trust to provide information about the vaccine?

Based on these seven questions, 33 extractions and analysis were conducted by region or country, totalling 330 extractions and graphics. In this report we highlight the main trends and takeaways of the collected data.



In [region or country], what are the top [reasons and factors] for youth to vaccinate? [Followed by list of factors or reasons]

In [region or country], what are the top reasons for youth with high school [or higher scholarity] to vaccinate? [Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for cis-female youth to vaccinate? [Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for cis-male youth to vaccinate? [Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for other gender [Transgender, Non-binary, Gender non-conforming, Two Spirit, Other] youth to vaccinate? [Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for youth with high school [or higher scholarity] to vaccinate, given that they believe in a successful vaccine and want to take the vaccine? [Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for youth with high school [or higher scholarity] to vaccinate, given that they don't believe in a successful vaccine and don't want to take the vaccine? [Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for youth with high school [or higher scholarity] to vaccinate, given that they may believe in a successful vaccine and may want to take the vaccine?
[Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for youth with high school [or higher scholarity] to vaccinate, given that they believe in a successful vaccine and want to take the vaccine as soon as possible?
[Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for youth with high school [or higher scholarity] to vaccinate, given that they believe in a successful vaccine and want to take the vaccine 3 months and 12 months after it is made available to them?
[Followed by list of factors or reasons]

In [region or country], what are the top [reasons and factors] for youth with high school [or higher scholarity] to vaccinate, given that they believe in a successful vaccine and want to [or maybe want to] take the vaccine, but need more time to consider?
[Followed by list of factors or reasons]

In the [region or country], what are the main trusted information sources for youth with high school [or higher scholarity]?
[Followed by list of information sources]

With the ongoing development of a vaccine, do you feel more confident against COVID-19?
[calculated by region or country]

LIST OF REASONS FOR VACCINATING OR NOT

1	To protect myself
2	To protect others
3	For being a front-liner and/or healthcare-related student or worker
4	Trust in recommendations from National Government and/or Health Authority
5	Trust in pharmaceutical companies and/or institutions running the vaccine trials
6	Reliable media resources about the vaccine
7	Friends and family that I trust are taking the vaccine
8	Collective behaviour / Social norm
9	Awareness / knowledge of the vaccine
10	Trust that the current measures (wear mask, social distancing and others) will resolve the COVID-19 pandemic
11	Cost to Vaccinate
12	Due to religious beliefs
13	Fear of needles / Pain of vaccination
14	Misinformation and Fake news about the COVID-19 vaccine
15	Fear of adverse side-effects and vaccine safety
16	Fear of lack of access and supply of the vaccine
17	Recovered from COVID-19
18	Perceived low risk of contracting COVID-19
19	Medical or health conditions that don't allow vaccination
20	Lack of transparency on vaccine production processes
21	Unreliable media resources about the vaccine
22	Distrust in pharmaceutical companies and institutions running the vaccine trials
23	Distrust in recommendations from National Government and/or Health Authority
24	For not being a front-liner and/or healthcare-related student or worker

LIST OF FACTORS THAT INFLUENCE THE DECISION TO VACCINATE

#	
1	Transparency of Vaccine Data
2	Known risks and side-effects of the Vaccine
3	Mechanism of the Vaccine
4	Length of immunity provided by the Vaccine
5	Length of clinical trial conducted for the Vaccine
6	Efficacy of the vaccine across individuals of different age groups
7	Efficacy of the vaccine among individuals of different ethnicities

LIST OF INFORMATION SOURCES

#	
1	World Health Organisation (WHO)
2	United Nations International Children's Emergency Fund (UNICEF)
3	International Health Authorities
4	NGOs
5	National Government or Health Authority
6	Pharmaceutical companies responsible for making the Vaccine
7	Media Outlets (EG. BBC, CNN)
8	Celebrities & Influencers
9	Friends and family

In the next section, we will present the regional analysis. In the case of the regions that needed weighted assessment, we will present corresponding countries with more than 500 responses [which we are calling spin-offs] following each corresponding geography.

KEY FINDINGS

PERCEPTIONS AND PERSPECTIVES OF YOUTH AROUND THE WORLD ON COVID-19 VACCINATIONS

Authored by Dr. Beatrice Bonami, Dr. Saad Uakkas, and Bushra Ebadi

The survey asked 4 questions around COVID-19 and vaccines. The first question aimed to assess youth confidence in COVID-19 vaccine development. Other questions include youth perceptions of vaccine success/efficacy, their likelihood to take the vaccine, and the timeframe in which they will take the vaccine. 77% of youth agreed or strongly agreed that they feel more confident against COVID-19 with the development of vaccines. This percentage was higher for HICs (83%) and UMICs (77%) compared to LMICs and LICs (65%). In total only 8% disagreed or strongly disagreed that vaccine development will not be successful in resolving the COVID-19 pandemic.

- To protect myself
- To protect others
- For being a front-liner and/or healthcare-related student or worker
- Trust in recommendations from National Government and Health Authority
- Trust in pharmaceutical companies and/or institutions running the vaccine trials
- Reliable media resources about the vaccine
- Friends and family that I trust are taking the vaccine
- Collective behaviour/Social norm
- Awareness/knowledge of the vaccine
- Trust that the current measures (wear mask, social distancing, and others) will resolve the COVID-19 pandemic
- Cost to Vaccinate
- Due to religious beliefs
- Fear of needles/Pain of vaccination
- Misinformation and fake news about the COVID-19 vaccine
- Fear of adverse side-effects and vaccine safety
- Fear of lack of access and supply of the vaccine
- Recovered from COVID-19
- Perceived low risk of contracting COVID-19
- Medical or health conditions that don't allow vaccination
- Lack of transparency on vaccine production processes
- Unreliable media resources about the vaccine
- Distrust in pharmaceutical companies and institutions running the vaccine trials
- Distrust in recommendations from national government and/or health authority
- For not being a front-liner and/or healthcare-related student or worker

Regarding the question about youth belief in vaccine success, 75% answered yes, while 21% answered maybe. Considerable differences were noted based on income level. 72% of HIC and 83% of UMIC surveyed youth responded yes compared to 61% for LMIC and LIC. 80% of youth worldwide are likely or very likely to take the vaccine. This rate was lower in LMICs and LICs with only 67% compared to 90% in UMICs. The rate varied for almost all regions between 64% (EMR) and 73% (Europe) except for the Americas where it reached 92%, with 85% being very likely to take the vaccine. When asked how quickly youth would take the COVID-19 vaccine, 56% said as soon as possible. The result was higher in UMICs with 73% compared to 42% in HICs, and 35% in LMICs and LICs.

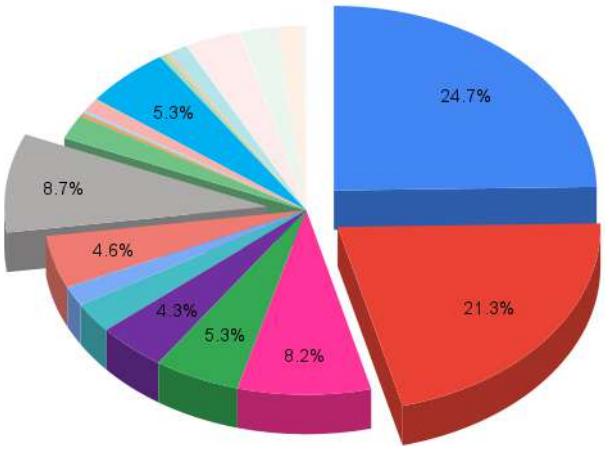


Chart 1: Top reasons in the world for youth with high school [or higher scholarity] to vaccinate

When looking at the general sample of respondents (Global Youth - Chart 1), there seemed to be unanimity in youth selecting protection as their top reasons for vaccinating, specifically: to protect myself (24,9% of respondents) and to protect others (21,9% of respondents). The next most popular reason was being a front-line and/or healthcare student or worker (8.6% of respondents). When comparing these results to the responses from youth with high-school or higher scholarity, the first two reasons remain prominent, but the third most selected reason changes to "awareness or knowledge of the vaccine" (8.7% of respondents). This may be as a result of a lower likelihood that high school students would be healthcare students or workers.

These results largely hold when disaggregating data based on gender. Certain discrepancies can be observed as it relates to medical or health conditions that do not allow vaccination, with female respondents being more likely to select this option compared to male and other gender respondents.

The majority of respondents indicated both confidence in the success of the vaccine as well as an intention to vaccinate.

Key factors informing the decisions of those intending to get vaccinated were: transparency of vaccine data, including risks, side-effects, as well as efficacy across different age groups.

The desire to get vaccinated as soon as possible (Chart 2) seems to largely be influenced by three main categories of reasons: protection and collective wellbeing, proximity to or frequency of exposure to risks, and trust in government, health authorities, pharmaceutical companies, family and friends. Among those who plan to take the vaccine between 3 and 12 months after it is made available, the main reasons are similar to those inclined to take the vaccine as soon as possible. However, the decisions of respondents who indicate needing more time to consider whether to take the vaccine or not are influenced by: distrust and lack of transparency in who and how vaccines are being developed, a fear of adverse side-effects, concerns about dis- and misinformation about COVID-19, and perceived low risk of contracting COVID-19. This group of respondents is especially important, as they are more likely to decide to get vaccinated as opposed to those who have already made the decision not to.

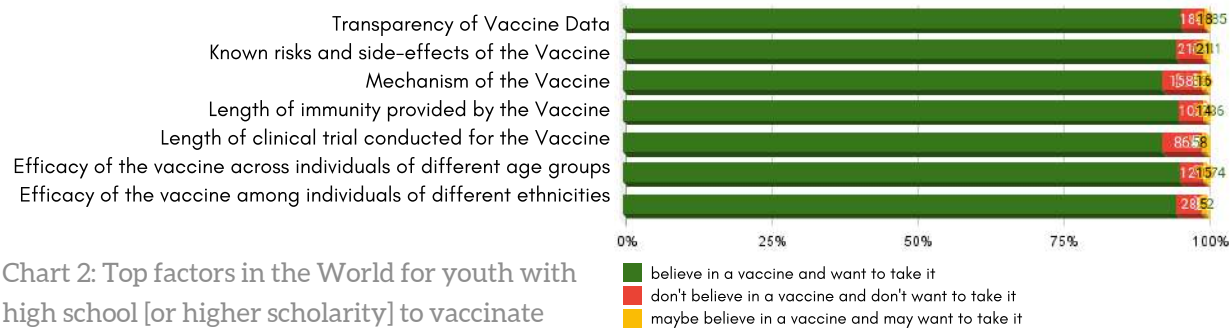


Chart 2: Top factors in the World for youth with high school [or higher scholarity] to vaccinate

The desire to get vaccinated as soon as possible seems to largely be influenced by protection and collective wellbeing, proximity to or frequency of exposure to risks, and trust in government, health authorities, pharmaceutical companies, family and friends.

The main factors influencing respondents' decisions on vaccination (Chart 3) were transparency of vaccine data (23.1% of respondents), vaccine risks and side-effects (24.3% of respondents), and vaccine efficacy across different age groups (16.4% of respondents). Youth in high school or higher scholarity indicated the length of immunity provided by the vaccine (13% of respondents), as well as the mechanism of the vaccine (around 12.9% of respondents) as important factors when considering whether to get vaccinated or not.

The transparency of vaccine data as well its risks, side effects, and efficacy across different age groups were key factors for those who expressed a desire to get vaccinated as soon as possible. Those who needed more time to make a decision indicated the mechanism of vaccine and length of clinical trials were key factors influencing their decisions. It therefore seems that improving accessibility to credible, transparent, and comprehensive information on vaccines plays a critical role in encouraging youth to get vaccinated. Multilateral and international organizations are the most trusted sources of information on COVID-19 among surveyed youth (Chart 4), with the World Health Organization being the most trusted, followed by UNICEF and international health authorities. Celebrities and influencers are the least trusted source of information by a wide margin. There is also greater distrust than trust in friends, family, and media outlets.

Finally, with the ongoing development of vaccines (Chart 5), the majority of respondents (over 75%) feel confident against COVID-19. Concerning the geographies of the survey, the most confident respondents are from Brazil, Western Pacific, and Europe. The least confident respondents are from Africa, the Americas, and India.

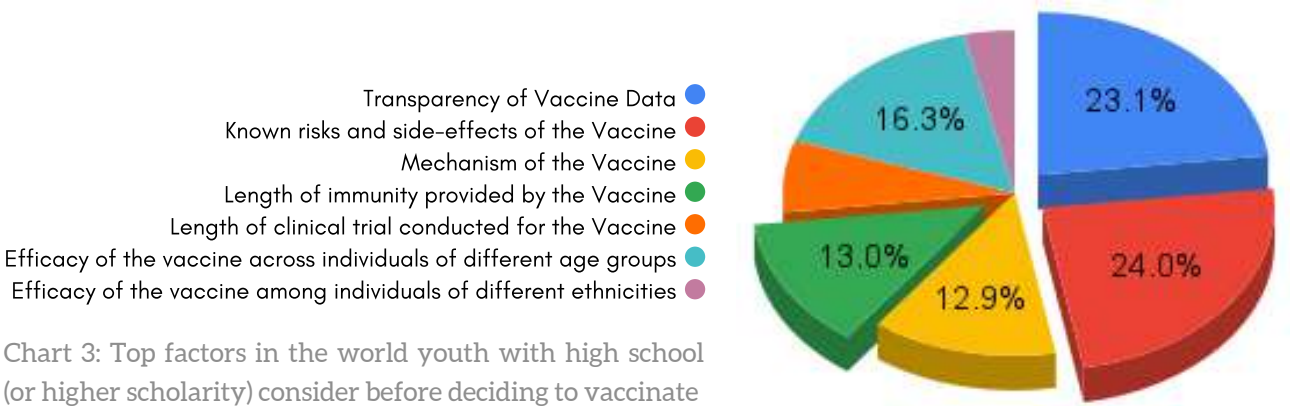


Chart 3: Top factors in the world youth with high school (or higher scholarity) consider before deciding to vaccinate

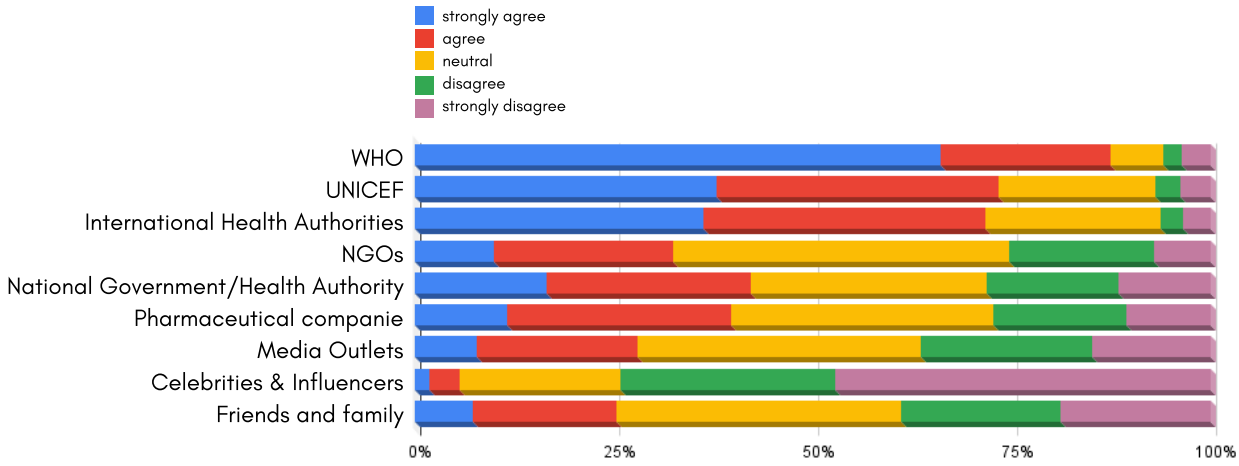


Chart 4: Most trusted sources of information among youth around the world with high school (or higher scholarity)

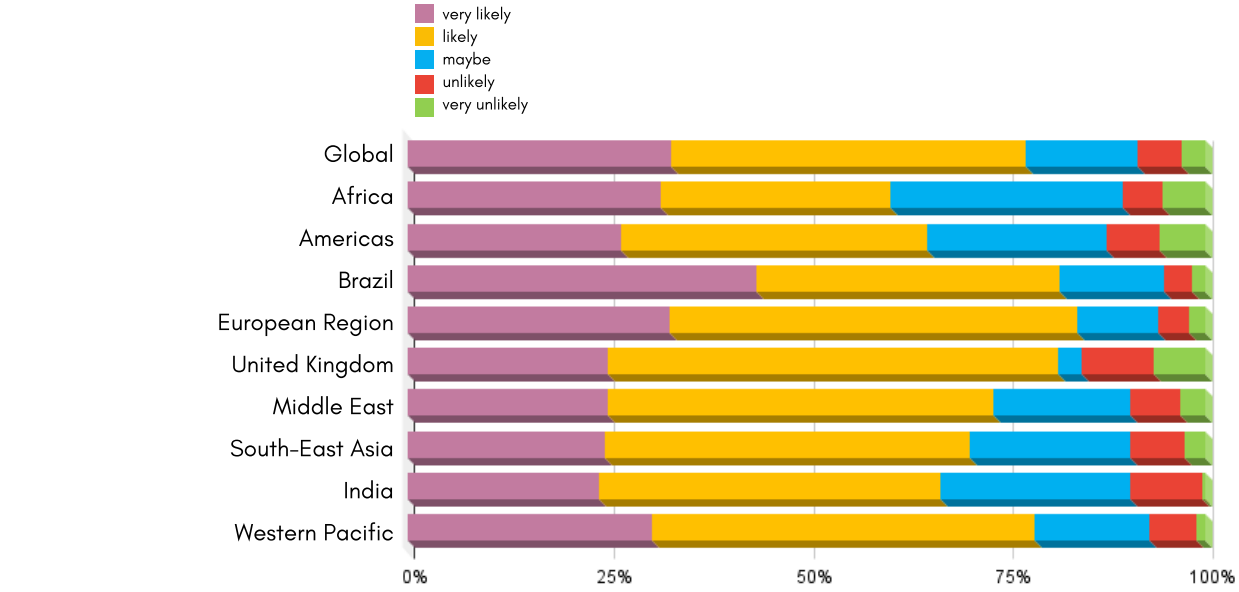


Chart 5: Confidence against COVID-19 with ongoing development of a vaccine

AFRICA

Authored by Bushra Ebadi

Youth from 14 African countries completed the Global Youth Survey on COVID-19 Vaccine Confidence. A majority of respondents were from Kenya, Nigeria, and Zimbabwe (approximately 70%). Compared to youth around the world and in other regions, youth respondents in Africa indicated that the development of vaccines is less likely to be a source of confidence in addressing the COVID-19 pandemic. While this survey did not specifically aim to understand the differences in confidence among different regions, the inequitable access to vaccines and lower likelihood that youth in Africa will be receiving a vaccine soon are factors that should be explored further.

In Africa, the top 10 reasons youth are motivated to get the vaccine can be grouped into 3 broad categories: **trust** in community, institutions, media, government, and current COVID-19 measures; their **knowledge** of and proximity/potential exposure to COVID-19; and collective **wellbeing/protection**. Over 40% of young student/scholar respondents selected protection (of themselves or others) as the top reason for vaccination against the COVID-19 virus. The third-most selected "top reason for getting vaccinated" was being a frontline or healthcare student or worker (11% of respondents).

A majority of respondents from the African region indicated their desire to take a vaccine and take it as soon as possible or within 3 to 12 months at the latest (Chart 6). The top six reasons (listed in order of number of respondents) for wanting to take the vaccine among young students/scholars were as follows:

- Protecting myself;
- Protecting others;
- Being a front-line or healthcare student or worker;
- Awareness/knowledge of the vaccine;
- Trusted friends/family are taking the vaccine;
- Collective behaviour/social norm.

The fear of adverse side effects and vaccine safety, as well as lack of transparency in vaccine production are the top reasons for delaying vaccination by more than 12 months to allow individuals more time to consider the safety of vaccines. The delayed rollout of and inequitable access to vaccines in Africa may be influencing respondents' desire to get the vaccine as soon as possible, since they may not have an opportunity to receive the vaccine in the next few months or even within the year.

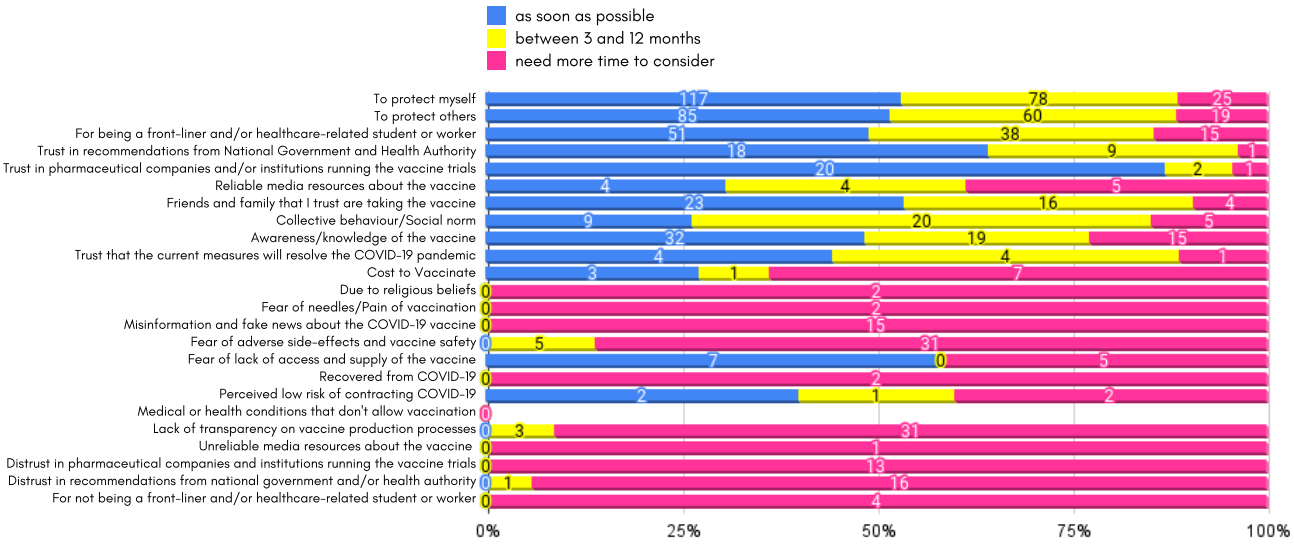


Chart 6: Top reasons in Africa for youth with high school (or higher scholarity) to vaccinate considering timeframe

These reasons mapped closely to the reasons respondents cited as influencing their decision to take the vaccine as soon as possible (listed below in order of number of respondents):

- Protecting myself;
- Protecting others;
- Being a front-line or healthcare student or worker;
- Awareness/knowledge of the vaccine;
- Trusted friends/family are taking the vaccine.

Respondents indicated that protecting themselves and others are largely considered key factors for wanting to take the vaccine. These factors, along with being a frontline or healthcare student or worker are the most influential factors in motivating youth to get vaccinated as soon as possible. A significant number of respondents also cite these factors as influencing their desire to get the vaccine between 3 and 12 months.

There seems to be a clear desire among respondents to get the vaccine as soon as possible, or within a year at the latest.

There are not a significant number of respondents indicating the reasons listed in the survey as detractors from getting vaccinated (Chart 7). The top reason for being uncertain about getting the vaccine or not waiting to get the vaccine is fear of adverse side effects and vaccine safety (about 8% of respondents). The fear of adverse side effects and vaccine safety, as well as lack of transparency in vaccine production are the top reasons for delaying vaccination by more than 12 months to allow individuals more time to consider the safety of vaccines. The delayed rollout of and inequitable access to vaccines in Africa may be influencing respondents' desire to get the vaccine as soon as possible, since they may not have an opportunity to receive the vaccine in the next few months or even within the year.

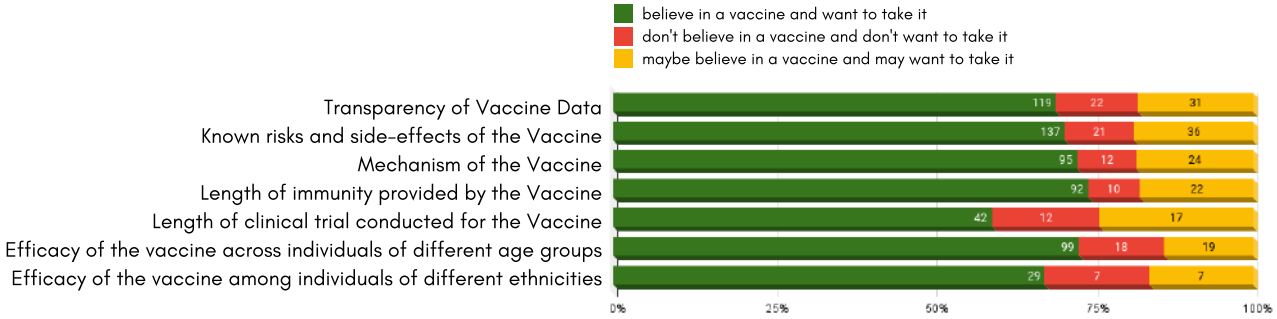


Chart 7: Top factors in Africa youth with high school (or higher scholarity) consider before deciding whether to vaccinate or not

Vaccination campaigns in the continent should prioritize improving equitable access for youth, while also preventing the spread of disinformation and misinformation that could increase hesitancy as vaccines become available. Cases with adverse effects from other regions may serve as examples deterring youth from getting vaccinated once they are able to do so.

Over 40% of respondents selected vaccine risks and side effects and transparency of vaccine data as the top factors in deciding to vaccinate. Other key factors include efficacy across different age groups, understanding the mechanism of the vaccine, and the length of immunity provided. Most of the factors listed in the survey were seen to be motivators, rather than deterrents, for getting vaccinated among respondents.

There is variance across genders in some of the reasons for youth to vaccinate. Female respondents were twice as likely to cite trust in national governments, health authorities, and pharmaceutical companies, as well as social norms as top reasons to vaccinate compared to male respondents. Female respondents also cited a lack of transparency on vaccine production and fear of adverse side effects and vaccine safety as top reasons to vaccinate compared to male respondents at a 3:2 ratio.

With regards to trust, African respondents seem to have more trust in international multilateral organizations or bodies (Chart 8). The WHO, UNICEF, and international health authorities are viewed as the most trusted sources of information, with over 60% of respondents strongly agreeing or agreeing that these organizations are their main trusted sources of information. The least trusted sources of information were celebrities and influencers, with approximately 75% of respondents indicating they strongly disagree or disagree that these actors are the main source of trusted information for youth.

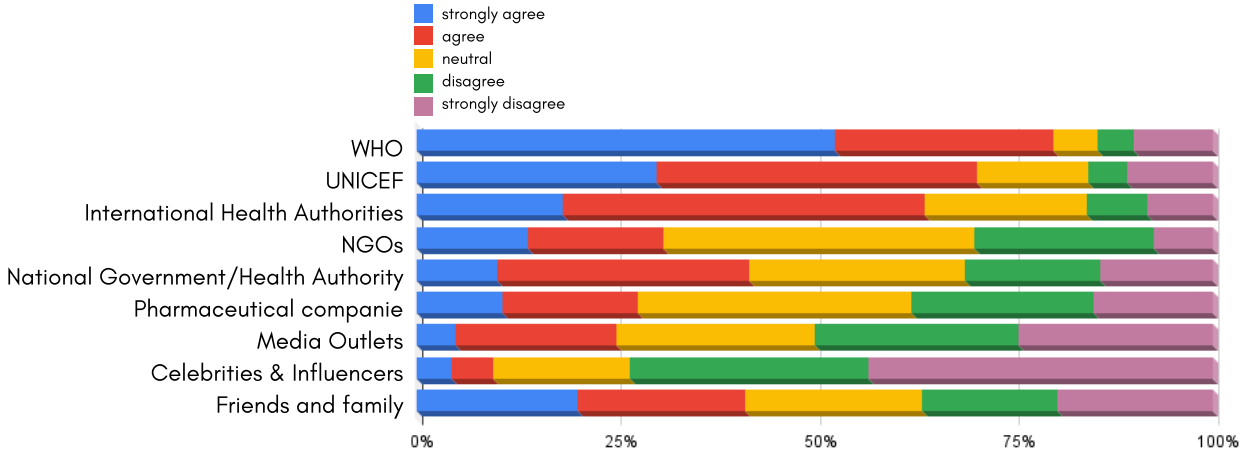


Chart 8: Most trusted information sources in Africa among youth with high school (or higher scholarity)

AMERICAS

Authored by Dr. Beatrice Bonami and Erika Domínguez Agramonte

The Americas had one of the largest numbers of respondents, representing 10% of the global sample. Based on the survey results, it is possible to deduce that youth in the Americas are largely aware of vaccines, want to get vaccinated, and feel more confident against the COVID-19 pandemic with ongoing immunization campaigns. A majority of respondents from the region feel confident in clinical trials. There are a number of vaccines being rolled out in the Americas, and each country's immunization program passed through thoroughly reviewed trials in order to make a decision of which vaccines would be rolled out by American nations. The survey results indicate that youth believe in the vaccination process and trust the scientists behind it. Moreover, youth are willing to get the vaccine as soon as possible in order to return to a sense of (new) normalcy.

The main reasons to vaccinate include protecting themselves (23.5%) and protecting others (23.5%). Respondents also expressed trust in information provided by National Health Authorities and country leaders, which was surprising given the period of political instability faced by some countries such as Brazil, United States and Colombia during the vaccine roll out. In addition, they trust scientific data and often check information about vaccine provisions and efficiency. Many of the respondents have also stated they are a "healthcare worker or student" (10.5%), and thus desire to be vaccinated.

The main factors influencing people who need more time to consider whether to get vaccinated or not are "length of clinical trial", "the mechanism of the vaccine" and "known risks and side-effects of vaccines".

The main factors influencing the decision to vaccinate (Chart 9) include "transparency of vaccine data" (23.1%), "known risks and side effects of the vaccine" (28.6%) and "efficacy of vaccine among individuals of different age groups" (12.5%).

There is currently some debate about the side effects of vaccines, and people seem to be in doubt about vaccination timeframes. However, when comparing answers of individuals who believe in or are skeptical about a successful vaccine, the decisions of those who do not believe the success of vaccines were influenced by "misinformation about COVID-19", "fear of side effects of vaccines", "lack of transparency in the vaccine production process" and "unreliable media resources about the vaccine".

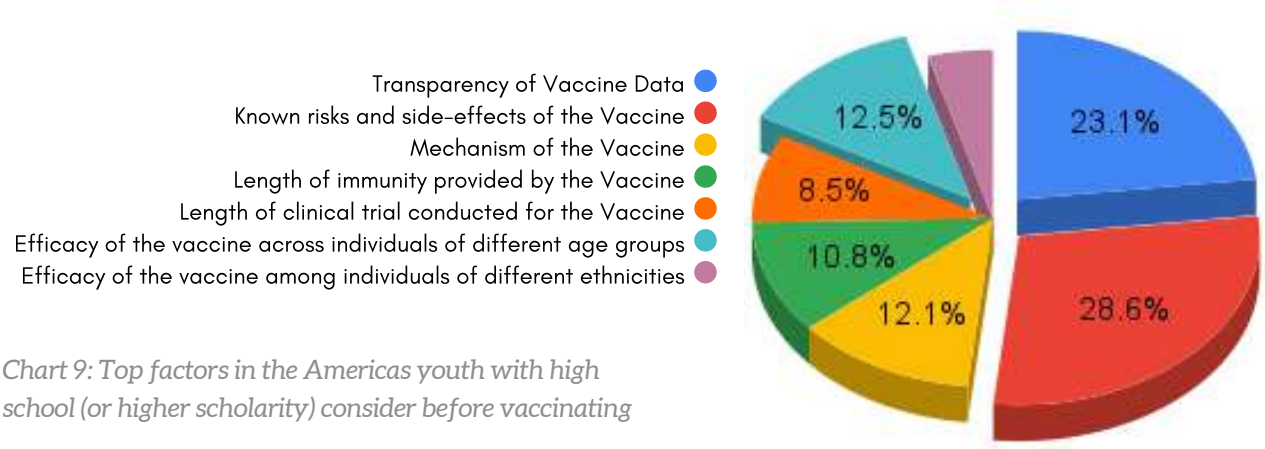


Chart 9: Top factors in the Americas youth with high school (or higher scholarity) consider before vaccinating

The main factors for those who do not believe in and are not willing to vaccinate were insufficient "length of clinical trial", unknown "mechanism of the vaccine" and "efficacy of vaccine between individuals of different ethnicities". The factors influencing vaccine decision-making did not seem to differ greatly between genders in the Americas.

Most surveyed individuals in the region are inclined to vaccinate as soon as possible (Chart 10). Among those who are in doubt about vaccinating and need more time to consider or make a decision, the main reasons to delay making a decision were "fear of adverse side effects", "lack of transparency in vaccine production process" and "distrust in national governments and health authorities".

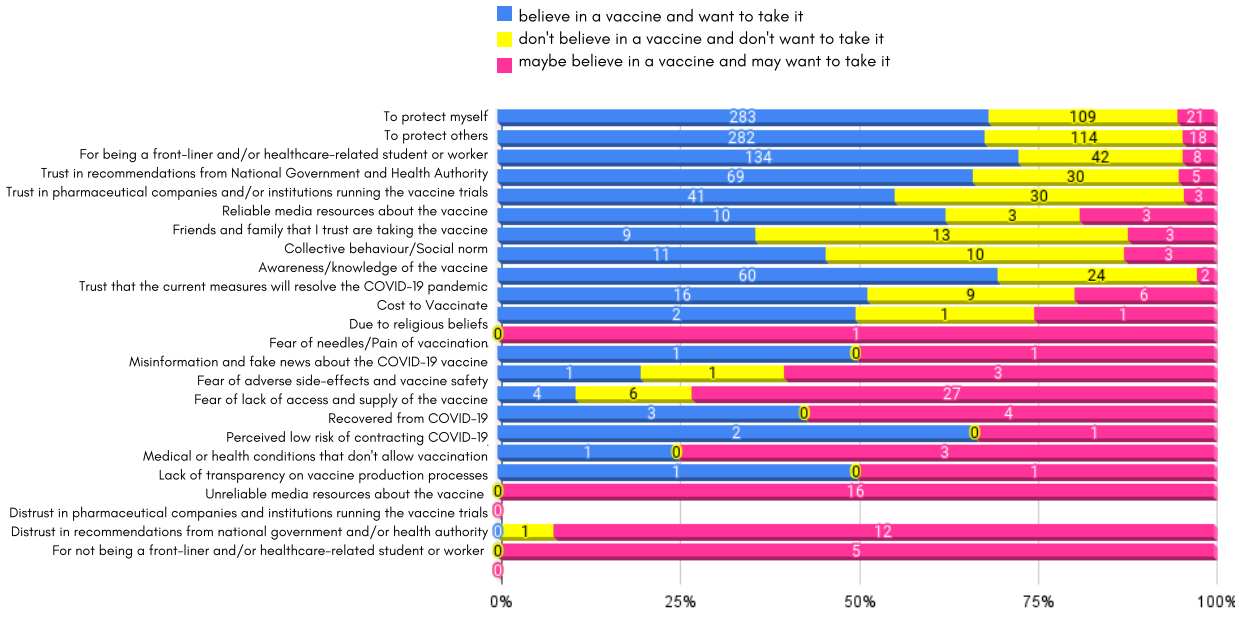


Chart 10: Top reasons in the Americas for youth with high school (or higher scholarity) to vaccinate

The main factors influencing people who need more time to consider whether to get vaccinated or not are “length of clinical trial”, “the mechanism of the vaccine” and “known risks and side-effects of vaccines”.

Among the main information sources (Chart 11), the WHO is the most trusted one, followed by International Health Authorities, and UNICEF. Among the least trusted sources are “celebrities and influencers”, “friends and family”, and “NGOs”.

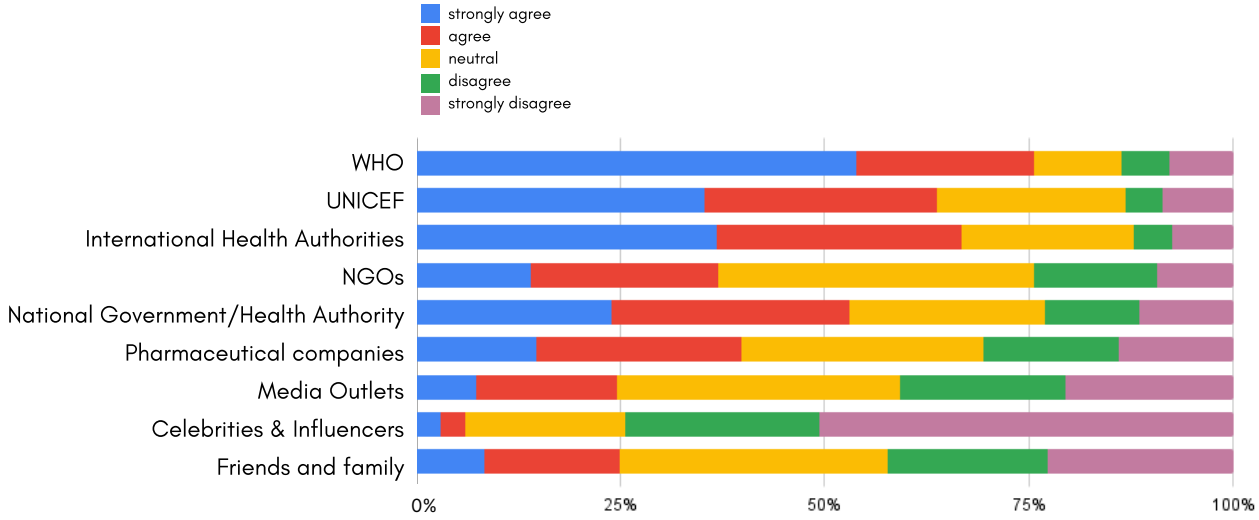


Chart 11: Most trusted information sources in Americas among youth with high school (or higher scholarity)

SPIN-OFF BRAZIL

Authored by Alexandre do Amaral, Dr. Beatrice Bonami, Caio Machado, and Dr. Mariana Ferreira Lopes

Brazil had over 4,000 survey respondents. This part of the report will provide an in-depth look at the country's situation, which now finds itself with more than 19 million COVID-19 cases and approximately 550,000 (as of end-July 2021) deaths accounted for since the beginning of the pandemic. Brazil is a country that has vast experience in carrying out vaccination campaigns throughout its history (smallpox, influenza, and polio), and its public health system (Sistema Único de Saúde, SUS) is internationally known for being universal and free.

However, the official communication campaigns around COVID-19 in Brazil have been a disaster of errors. The scientific and health aspects of the coronavirus have been constantly put aside by Brazil's current leaders which, therefore, suggests that information around vaccinations is being turned into a tool for political bargaining. The political context is important to understand misinformation about the pandemic, especially due to messages disseminated through social media.

With Brazil becoming a center for COVID-19 infections worldwide, our research reveals interesting data about the trend on vaccine confidence amongst youth in the country. It is important to highlight that youth are not part of the priority group for vaccination in Brazil and the date set to start public immunization will be at the end of August 2021, but not in all cities or regions [immunization roll out has been uneven between the 27 Brazilian states].

The main factors Brazilian youth consider before getting vaccinated are similar to global trends: "known risks and side effects of the vaccine", "transparency of vaccine data", and "efficacy of the vaccine across individuals of different age groups".

When comparing to the worldwide trend (Chart 12), Brazilian youth also share almost the exact same reasons for wanting to get vaccinated with a slight variation to the global response: to protect myself (30,4%), to protect others (29,6%), and awareness/knowledge of the vaccine (9,6%).

The biggest concern among those who believe in a vaccine and want to take it, and those who do not believe in a vaccine and do not want to take it, are the "fear of adverse side-effects the vaccination might cause". Thus, adverse side effects are an important point to be addressed in COVID-19 vaccine communication campaigns.

Chart 12: Top reasons in Brazil for youth with high school (or higher scholarity) to vaccinate

The main factors Brazilian youth consider before getting vaccinated are similar to global trends (Chart 13): "known risks and side effects of the vaccine" (25,9%), "transparency of vaccine data" (30%), and "efficacy of the vaccine across individuals of different age groups" (18,1%). Any communication campaign targeting youth vaccination should address clearly and transparently these types of information.

It is also important to note the eagerness of most youth in Brazil to get vaccinated, with most survey respondents wanting to take a vaccine as soon as possible.

The biggest discrepancy of those who do not want to vaccinate due to not believing in a successful vaccine is about the "length of clinical trials" [around 17% of the sample], which may suggest skepticism in the quick development and rollout of vaccines.

What stands out in Brazil's specific country analysis are youth's leading trusted information sources (Chart 14). While the WHO, UNICEF, and international health authorities are the primary trusted sources of information, the Brazilian government's disclosures seem of little importance to the population.

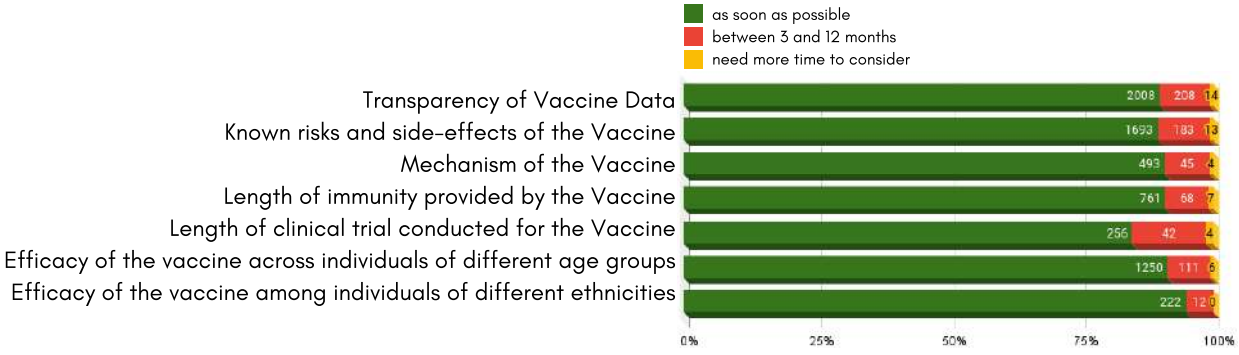


Chart 13: Top factors youth in Brazil with high school (or higher scholarity) consider before vaccinating considering timeframe

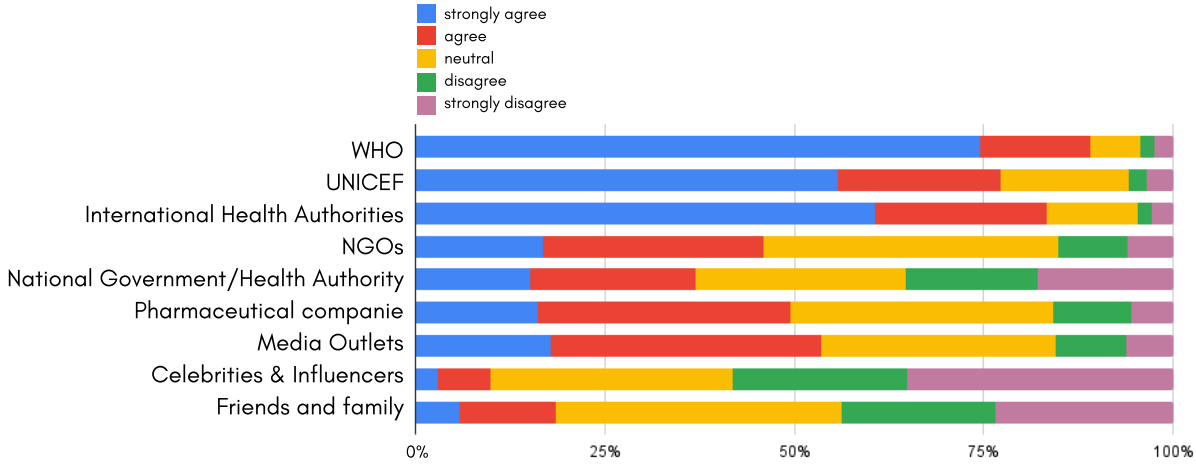


Chart 14: Most trusted information sources in Brazil among youth with high school (or higher scholarity)

NGOs, media outlets, and pharmaceutical companies rank with a higher trust percentage among youth than Brazil's national government and health authorities.

These findings can be explained by the repeated lack of competence demonstrated by the country's current political leaders, who downplayed the effects of COVID-19 and compared it to a "little flu". It took hundreds of thousands of deaths (now surpassing 550,000) for them to hint at a change in narrative. A considerable part of the population now stares in disbelief at any communication coming from the government. In January 2021, Twitter flagged a post from the Ministry of Health flagging "the publication of misleading and potentially harmful information related to COVID-19". In light of such events, mayors and regional State leaders have challenged Brazil's federal government, using the chaotic information campaigns as political fodder, contributing even more to the political unrest and spread of disinformation on both state-controlled and social media.

This context led to the creation of a Parliamentary Inquiry Commission to investigate the Brazilian government's response to the pandemic. Scientific researchers and renowned physicians seem to be one of the only sources of reliable information regarding the pandemic and vaccines from within the country. Luckily, several media outlets and open TV channels have been constantly putting their voices in the spotlight. Names such as Dr. Drauzio Varella and the director of Brazil's biggest vaccine production lab (Instituto Butantan), Dimas Covas, are well known across Brazil. Other important actors in the fight against disinformation about COVID-19 and vaccines are NGOs and communication collectives, which have popularized health literacy and fact-checking in campaigns through online and offline channels*. The combination of these factors help explain the results of the survey, regarding the trend in Brazil on vaccine confidence among youth.

*Examples are the initiative promoted by the UN and the Lupa Agency; community communication actions in vulnerable territories and partnerships such as "Se Liga no Corona", developed by the Oswaldo Cruz Foundation.

EUROPE

Authored by Bushra Ebadi

Youth from 27 European countries completed the Global Youth Survey on COVID-19 Vaccine Confidence. The development of vaccines is largely a source of confidence in addressing the COVID-19 pandemic among youth respondents.

In Europe, the top 10 reasons youth are motivated to get the vaccine can be grouped into 3 broad categories: trust in community, institutions, media and government; their knowledge of and proximity/potential exposure to COVID-19; and collective wellbeing/ protection. Almost half of participants selected protection (of themselves or others) as the top reason for vaccination against the COVID-19. The third-most selected "top reason for getting vaccinated" was being a frontline or healthcare student or worker (over 14% of respondents).

The results are similar when looking at the top reasons for youth in high school or higher education to vaccinate. Again, protection of oneself or others and being a frontline healthcare student or worker were selected as the top 3 reasons to vaccinate at a similar rate as the entire group of youth in the region. The most significant reason for uncertainty on whether to take the vaccine or not among young students/scholars was fear of the adverse side-effects and safety of vaccines, as well as the lack of transparency surrounding vaccine production processes. These two reasons were also key factors in delaying vaccination by more than 12 months among respondents - to allow individuals more time to consider the safety of vaccines. Vaccination campaigns targeting youth should work to be transparent and ensure adverse effects and harms are contextualized and are not being exaggerated. Failing to account for these concerns and simplistic narratives that mistakenly cite apathy or recklessness among youth as reasons why they are not getting vaccinated are dangerous and risk damaging trust between young people and governments, social institutions, and health authorities.

Vaccination campaigns targeting youth should work to be transparent and ensure adverse effects and harms are contextualized and are not being exaggerated. Failing to account for these concerns and simplistic narratives that mistakenly cite apathy or recklessness among youth as reasons why they are not getting vaccinated are dangerous and risk damaging trust between young people and governments, social institutions, and health authorities.

A majority of respondents from this demographic indicated their desire to get vaccinated.

The top five reasons (listed in order of number of respondents) for wanting to take the vaccine among young students/scholars were as follows:

- Protecting myself/Protecting others;
- Being a front-line or healthcare student or worker;
- Trust in recommendations from National Government and/or Health Authorities;
- Awareness/knowledge of the vaccine;
- Collective behaviour/social norm;

These reasons (listed below in order of number of respondents) were also influencing respondents to get the vaccine as soon as possible:

- Protecting others;
- Protecting myself;
- Being a front-line or healthcare student or worker;
- Trust in recommendations from National Government and/or Health Authorities;
- Awareness/knowledge of the vaccine;
- Collective behaviour/social norms;
- and Trust in pharmaceutical companies and/or institutions running vaccine trials;

Key considerations before making a decision on vaccinating among youth respondents, including young students/ scholars, focus on information about the vaccine, including risks and side-effects, length of immunity/ protection, mechanism, efficacy across different age groups, and length of trials.

Approximately 50% of respondents selected transparency of vaccine data and vaccine risks and side-effects as the top factors in deciding to vaccinate or not (Chart 15). Respondents indicated that the efficacy of the vaccine is largely considered a factor for wanting to take the vaccine. In fact, most of the factors listed in the survey were motivating respondents to take the vaccine. The known risks and side-effects may impact young students'/scholars' desire to take the vaccine, but this factor largely remains one that motivates rather than detracts young people from taking the vaccine.

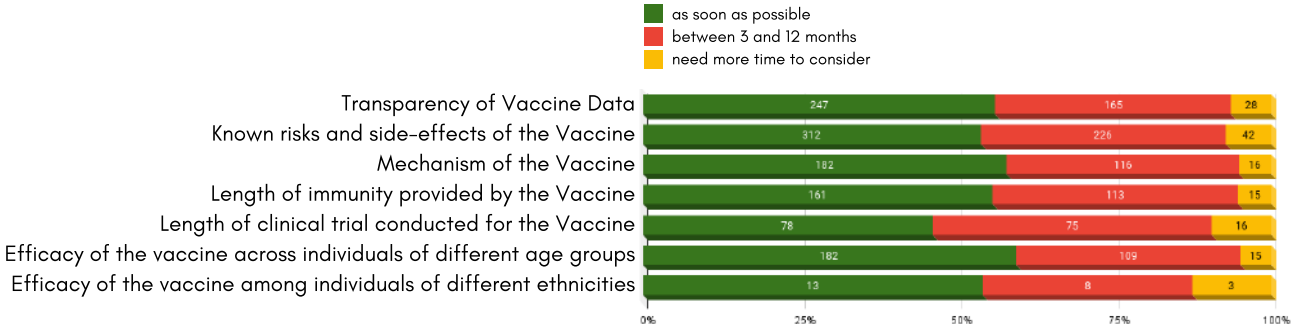


Chart 15: Top factors youth in Europe with high school (or higher scholarity) consider before vaccinating considering timeframe

The risks, side-effects, transparency, and efficacy of vaccines are the most influential factors in motivating youth to get vaccinated as soon as possible. However, a significant number of respondents also cite these factors as influencing their desire to get the vaccine between 3 and 12 months. There seems to be a clear desire among respondents to get the vaccine as soon as possible or within a year, at the latest.

Variance in the reasoning for getting vaccinated differs across genders (Chart 16). Distrust and fear surrounding the vaccine seem to be more prominent among female respondents, compared to male respondents. Specifically, female respondents in Europe were more likely to distrust of pharmaceutical companies, government, and/or health authorities in deciding whether to take the vaccine or not than male respondents at a 3:1 ratio.

Generally, trust and distrust in pharmaceutical companies and vaccine trials featured more prominently in female respondents' reasoning to vaccinate than male respondents.

Female respondents also cited fear of adverse side effects and lack of transparency on vaccine production processes at a 2:1 ratio to male respondents. Female respondents were also more likely to cite protecting themselves and others and being a front-line or healthcare worker or student as a reason to vaccinate than male respondents. Approximately three times more female respondents than male respondents indicated awareness and knowledge of the vaccine as a top reason to vaccinate. Female respondents were more likely than male respondents to decide to vaccinate based on the risks, side-effects, and efficacy of the vaccine.

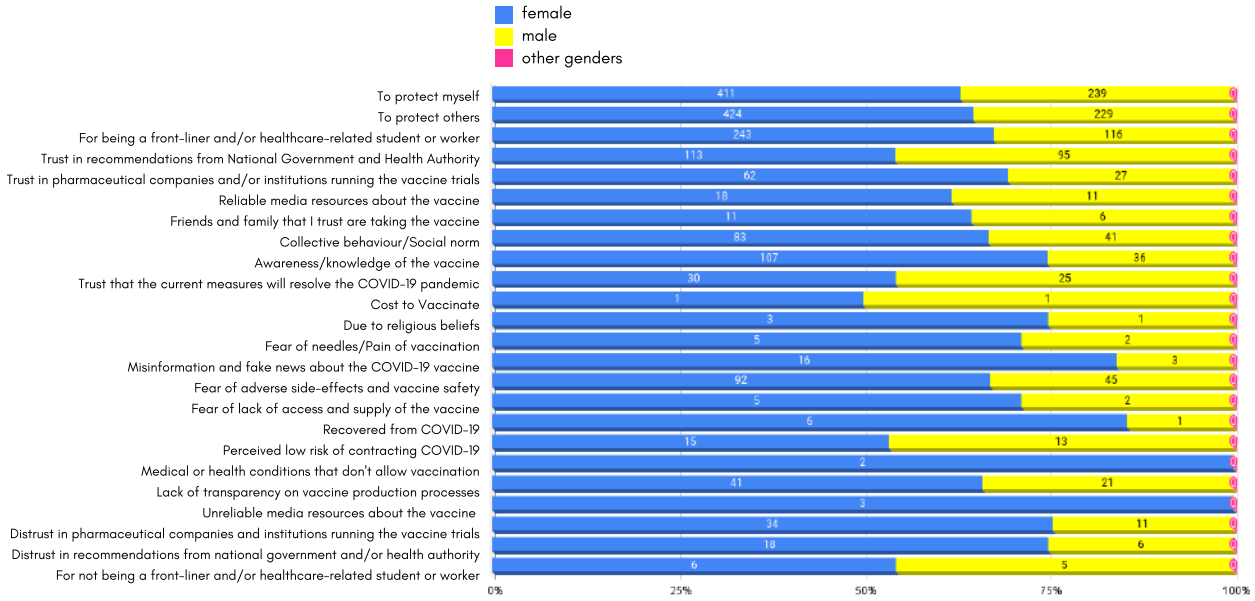


Chart 16: Top reasons in Europe for youth with high school (or higher scholarity) to vaccinate according to gender

With regards to trust (Chart 17), the WHO is viewed as the most trusted source of information, with over 75% of respondents strongly agreeing or agreeing that the organization is their main trusted source of information. International health authorities, national governments or health authorities, and UNICEF were also selected by respondents as the main sources of trusted information.

The least trusted sources of information were celebrities and influencers (more than 75% indicated they disagree or strongly disagree), as well as friends and family and media outlets.

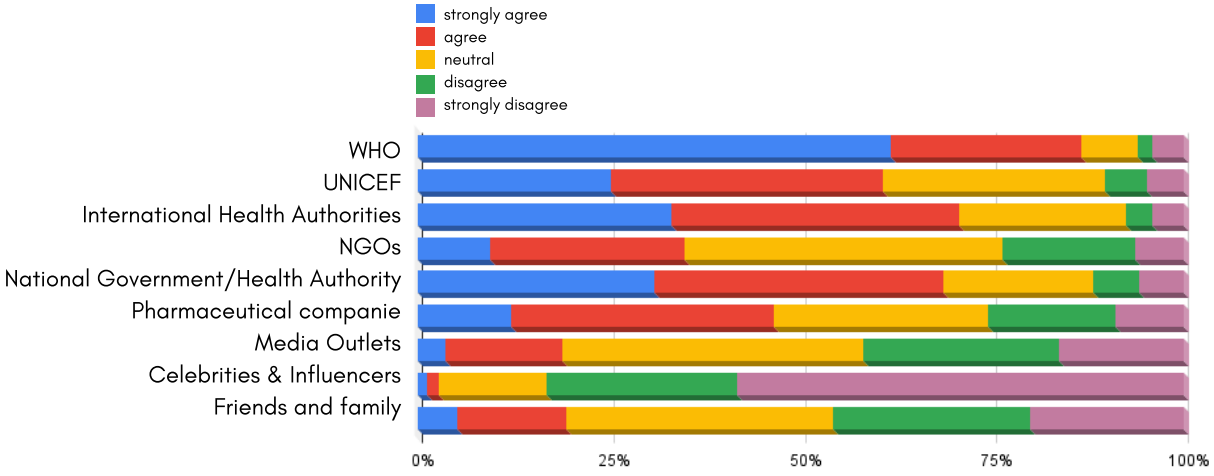


Chart 17: Most trusted information sources in Europe among youth with high school (or higher scholarity)

SPIN-OFF UNITED KINGDOM

Authored by Hera Mobeen Ali and Lucy Fagan

Over 10% of survey responses were from individuals in the UK, which equated to over 1000 reponses. As of 29 July 2021, the UK has seen 5,801,561 cases of COVID-19 and 153,342 cases where COVID-19 is documented as the cause of death and 129,515 deaths within 28 days of a positive COVID-19 test. The UK vaccination programme began in December 2020 and includes vaccines approved in the UK. As of 6 July 2021, the UK reports 45,428,681 and 33,874,176 people have received the first and second dose of the COVID-19 vaccine, respectively. However, a study on Covid-19 vaccine hesitancy among ethnic minority groups in the UK found that vaccine hesitancy is higher among Black, Asian and minority ethnic (also known as "BAME") communities compared to other demographics.

In the UK, the highest factors that youth consider before deciding to vaccinate were the same (Chart 18): known risks and side effects of the vaccine (20.1%), the efficacy of the vaccine across individuals of different age groups (19%) and known risks and side effects (24%).

The most important factors youth consider before deciding to vaccinate included risks and side effects (20%), as well as efficacy of the vaccine (19%). These responses were closely followed by the length of immunity provided by the vaccine (17%) and of transparency of vaccine data (16%).

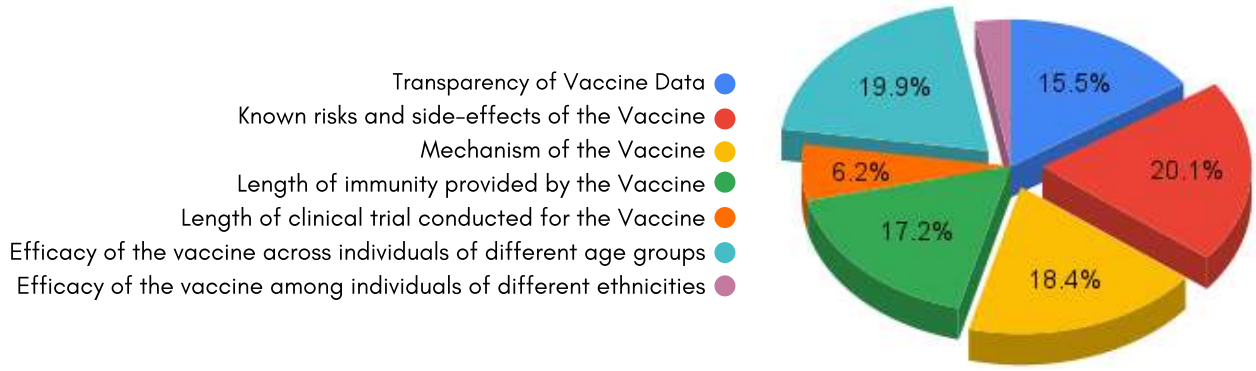


Chart 18: Top factors in the UK youth with high school (or higher scholarity) consider before vaccinating

The most important factors youth consider before deciding to vaccinate, included risks and side effects (20%), as well as efficacy of the vaccine (19%). These responses were closely followed by:The length of immunity provided by the vaccine (17%) and of vaccine data (16%).

Responses did not statistically differ when comparing the general youth population with youth with high school or more schooling. When compared with global responses, the most cited factor that youth consider before deciding to vaccinate was the same: known risks and side effects of the vaccine. The second highest factor varies between respondents in the UK and global respondents, with the former selecting efficacy of the vaccine across individuals of different age groups (19%), and the latter selecting known risks and side effects (24%).

When analysing the data based on gender, both female and male youth respondents reported the top factor to consider to be, respectively:

- Known risks and side-effects of the vaccine,
- Efficacy of the vaccine across individuals of different age groups.

Both female and male youth reported the efficacy of the vaccine among individuals of different ethnicities as the least important factor when deciding to vaccinate or not (Chart 19).

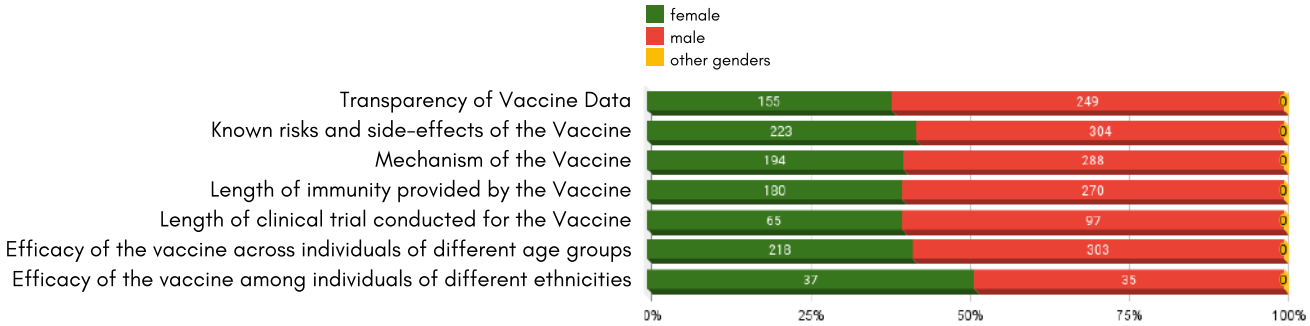


Chart 19: Top factors in the UK youth with high school (or higher scholarity) consider before vaccinating considering gender

Youth with higher scholarity, who believe in the vaccine and want to take it, were most likely to select efficacy of the vaccine across individuals of different age groups as the most important factor to consider prior to vaccination. For those who did not believe in the vaccine and did not want to take it and among those who may believe in the vaccine and may want to take it, the most important deciding factor was the known risks and side effects of the vaccine. All youth with higher scholarity, despite varying views and beliefs

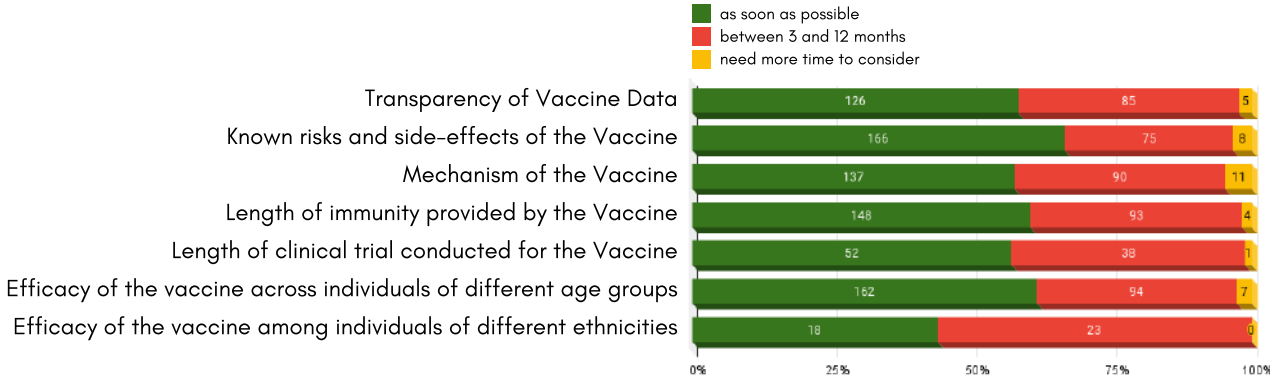


Chart 20: Top factors in the UK youth with high school (or higher scholarity) consider before vaccinating according to time frame

on taking the vaccine, reported efficacy of the vaccine among individuals of different ethnicities as the least important deciding factor.

When considering the three options regarding the time frame (Chart 20) in which youth with high scholarity want to take the vaccine, those who wanted it as soon as possible reported known vaccine risks and side-effects as the most important factor to consider before vaccination", whereas those who stated they would take it between 3 and 12 months cited efficacy of the vaccine across individuals of different age groups as the most important factor for consideration". Those who stated to needed more time to consider, reported the mechanism of the vaccine as the most important deciding factor, which could be the cause of their hesitation. Regarding top reasons to vaccinate, UK youth reported the highest importance on:

- Personal protection (19%);
- Protection of others (11%);
- Fear of adverse side effects (10%).

This did not differ based on age group.

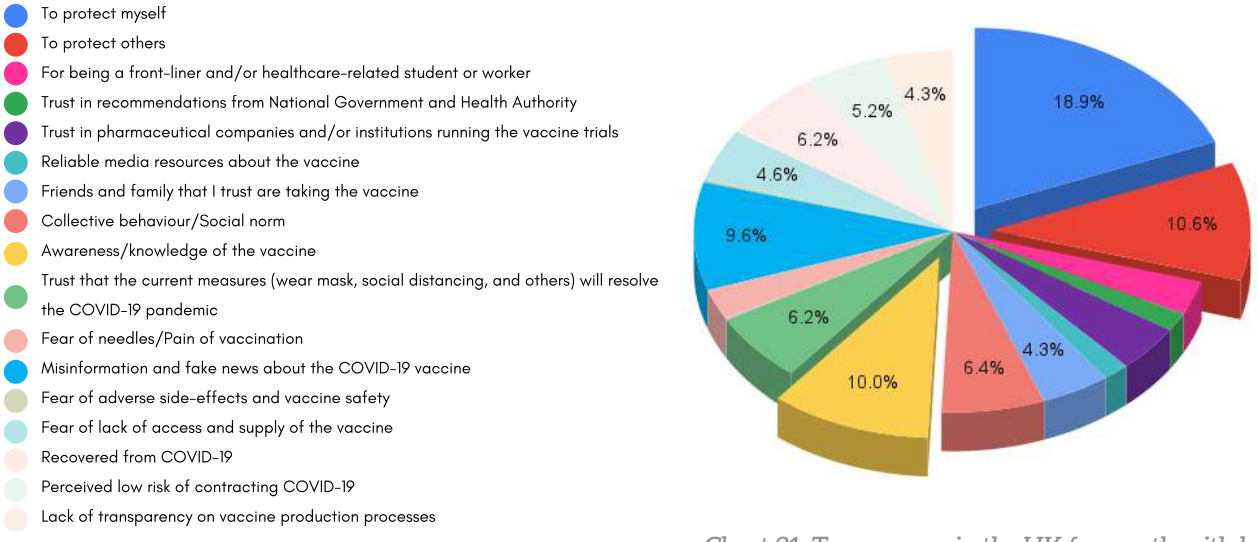


Chart 21: Top reasons in the UK for youth with high school (or higher scholarity) to vaccinate

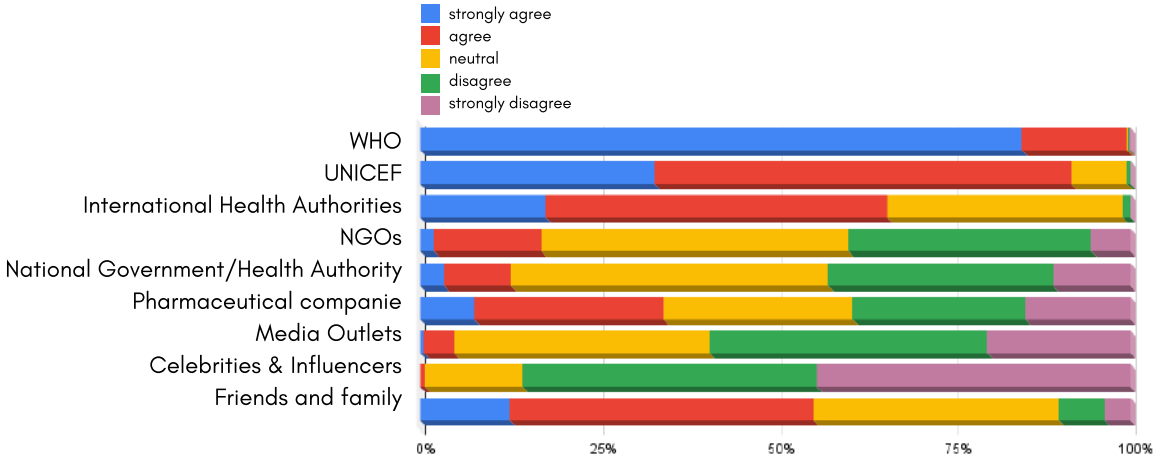


Chart 22: Most trusted information sources in the UK among youth with high school (or higher scholarity)

The top three reasons (Chart 21) youth with higher scholarity reported wanting to vaccinate was:

- Protecting themselves (18.9%);
- Protecting others (10.6%);
- And awareness/knowledge of the vaccine (10%).

When comparing responses by gender, both male and female respondents selected personal protection as their top reason to vaccinate. However the second highest reason varies by gender, with female respondents selecting protection of others, while male respondents selected fear of adverse side effects and vaccine safety.

The top two reasons for those who believe in the successful development of vaccines and want to take it were protection of themselves and others. In contrast, those who do not believe in the success of COVID-19 vaccines and did not want to take it or those who may believe in the vaccine and may want to take it, were influenced by fear of adverse side-effects and vaccine safety.

This aligns with the factors that these same individuals would consider most important in deciding to get vaccinated. The top reasons for wanting to vaccinate as soon as possible were being a frontline worker and having access to reliable media sources covering the vaccine. Those who wanted to wait to be vaccinated were concerned about:

- Adverse side effects of the vaccine;
- Perceived low risk of contracting COVID-19;
- Mistrust in pharmaceutical companies;
- Misinformation about vaccines

The main trusted information sources (Chart 22) were: the WHO, UNICEF, and International Health Authorities, with most respondents indicating they either agree or strongly agree that these institutions are trusted sources. Over 50% of respondents also indicated trust in friends and family. Sentiments toward NGOs and national government or health authority were largely neutral. While celebrities and influences, and media outlets were among the least trusted sources of information.

MIDDLE EAST

Authored by Dr. Saad Uakkas

Regarding the Middle East sample, the main reasons pushing youth to vaccinate are self protection (22.9%), protecting others (18.4%) and being a front-line or healthcare student/worker (12.7%) Results were similar for youth with high-school or higher scholarity with similar percentages: 22.9%, 18.4% and 12.7% respectively.

The majority of respondents believe in a successful vaccine (Chart 23) and expressed their intention to vaccinate. The main reasons selected for those who are willing to vaccinate include [in order of respondents]:

- To protect myself;
- To protect others;
- For being a front-liner and/or health-care student or worker;
- Trust in recommendations from National Government and/or Health Authority;
- Trust in pharmaceutical companies and/or institutions running the vaccine trials;
- Collective behavior and/or social norm;
- Awareness/knowledge of the vaccine.

Comparatively, those who do not believe in a successful vaccine and are not willing to vaccinate were influenced by:

- Fear of adverse side-effects and vaccine safety;
- Lack of transparency on vaccine production processes;
- Distrust in pharmaceutical companies and institutions running the vaccine trials;
- Unreliable media sources about the vaccine.

For those who are uncertain about getting vaccinated, the following were the top factors influencing their decision-making:

- Cost to vaccinate;
- Lack of transparency on vaccine production processes;
- For not being a front-liner and/or healthcare-related student and/or worker;
- Fear of lack of access and supply of the vaccine.

Almost half of respondents expressed distrust in national governments and health authorities, as well as pharmaceutical companies. This gives a preview of the main channels and sources of trusted communication that can be leveraged to develop effective vaccine communication strategies with this group.

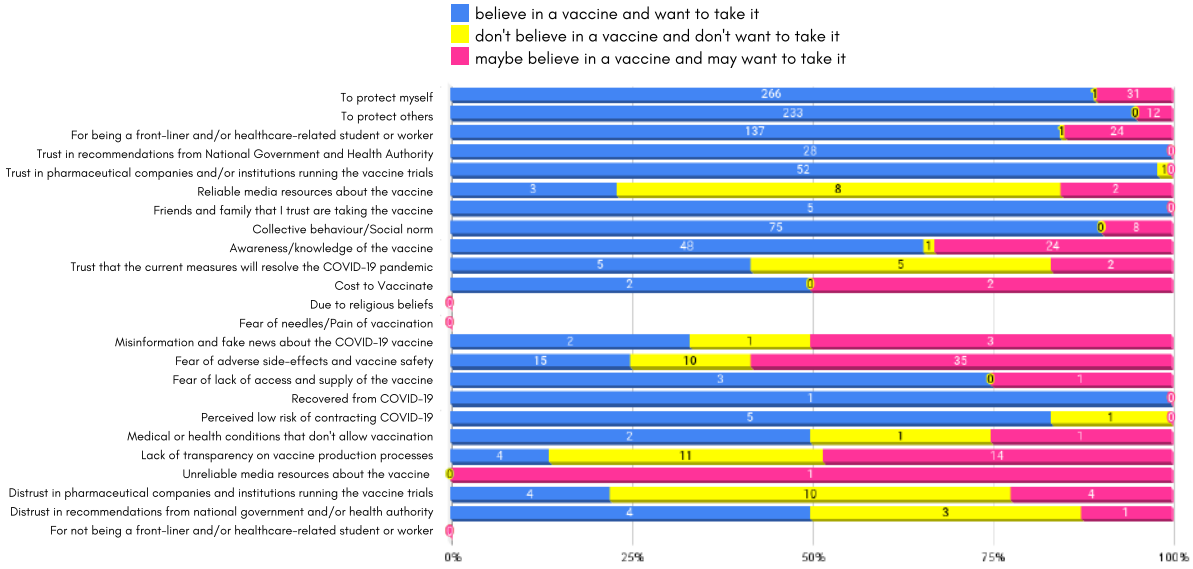


Chart 23: Top reasons in Middle East for youth with high school (or higher scholarity) to vaccinate

Most youth respondents in the Middle East region indicated their interest to take the vaccine as soon as possible or in less than a year. Protecting oneself and others, being a frontline or healthcare student, as well as trust in pharmaceutical companies and vaccines institutions were the most influential factors among youth who wish to get vaccinated immediately. For youth that wanted to get vaccinated between 3 and 12 months, protecting oneself and others, being a frontline or healthcare student, and collective behavior and social norms were the most cited factors. Few youth needed more time to consider whether to get vaccinated or not. However, among the few who did express a desire to wait before making a decision, lack of transparency on the vaccine production process and the fear of side-effects were the primary factors influencing decision-making.

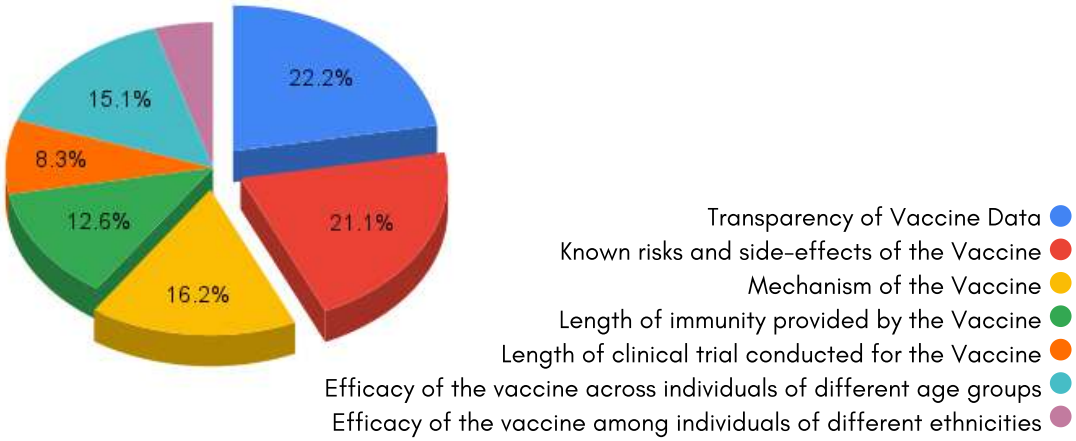


Chart 24: Top factors in the Middle East youth with high school (or higher scholarity) consider before vaccinating

Over 40% of youth respondents consider transparency of vaccine data and risks and side-effects before deciding to vaccinate (Chart 24). Other notable decision-making factors include the mechanism of the vaccine, efficacy across individuals in different age groups, and length of immunity provided by vaccines. These factors largely motivate rather than detract youth willingness to take the vaccine.

Most surveyed youth in the region (Chart 25) considered international health authorities and organizations, including WHO and UNICEF as the main trusted sources of information. The least trusted sources of information include celebrities and influencers, friends and family, as well as media outlets. Almost half of respondents expressed distrust in national governments and health authorities, as well as pharmaceutical companies. This gives a preview of the main channels and sources of trusted communication that can be leveraged to develop effective vaccine communication strategies with this group.

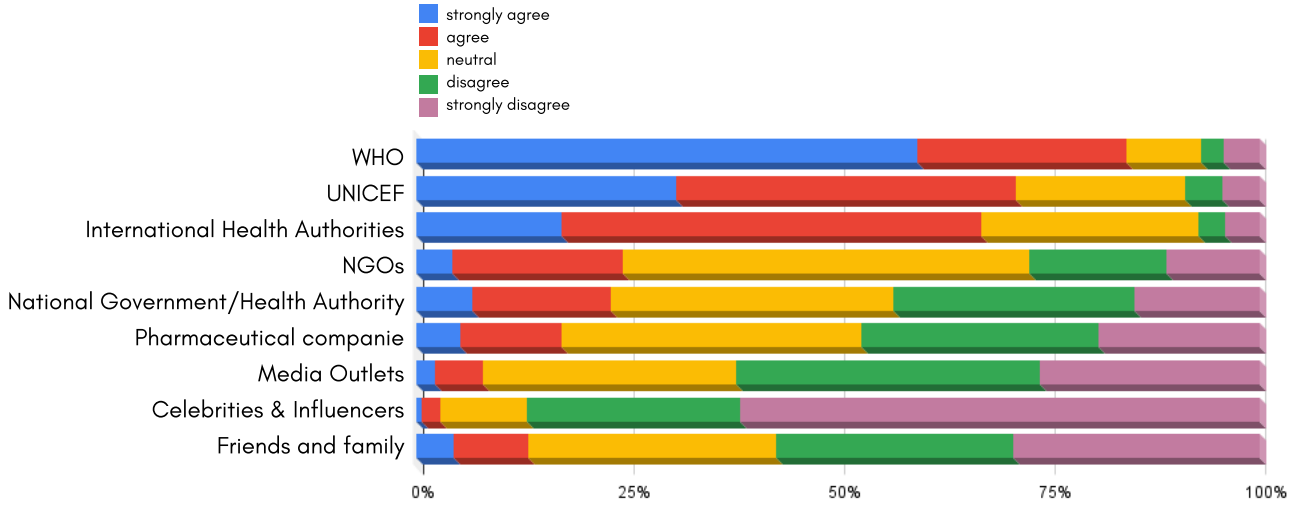


Chart 25: Most trusted information sources in the Middle East among youth with high school (or higher scholarity)

SOUTH-EAST ASIA

Authored by Ian Soh

The South-East Asia region had over 200 survey respondents. This section of the report is devoted to sharing greater insights into the region's situation without accounting for the survey respondents from India, where a separate section is dedicated for analyzing the situation in India [due to data weighting]. At the moment, the South-East Asia region has confirmed more than 35.6 million COVID-19 cases and 503,500 deaths, of which the 30.7 million COVID-19 cases and 405,000 deaths were from India alone. When compared with the neighbouring Western Pacific region, the number of established cases and deaths in South-East Asia was 10 times higher. With the current vaccine roll-out underway in South-East Asia, the Economist Intelligence Unit predicts Thailand, Indonesia, and Bangladesh are likely to only vaccinate 60% of the population by 2022, 2023, and 2024 respectively. Although the vaccine roll-out in South-East Asia has been relatively slow compared to other contexts, such as the United Kingdom, this can largely be attributed to vaccine equity problems. With that, it is imperative to begin building trust across the populations as soon as possible to help control the spread of COVID-19 in the region by ensuring people getting vaccinated once it is made available to them.

Youth who believe in the vaccine and want to take it consider transparency of vaccine data as one of the most important factors to consider prior to vaccination. For those who did not believe in the vaccine and did not want to take it, the most important decision-making factor was the efficacy of the vaccine among individuals of different ethnicities.

The top reasons in South-East Asia (Chart 26) for youth to vaccinate are protecting themselves (22.7%) and protecting others (20.9%), which follows global trends (presented in this survey). Uniquely, there is also a considerable proportion of youth who indicated an interest to vaccinate because of their awareness or knowledge of the vaccine (9.8%). Whereas on the other hand, a similar proportion expressed their interest not to vaccinate because of fear of adverse side-effects and vaccine safety.

There is also a considerably high percentage of survey participants that were motivated to get vaccinated because of their status as front-line and/or healthcare-related students or workers (9.1%). When scholarity is taken

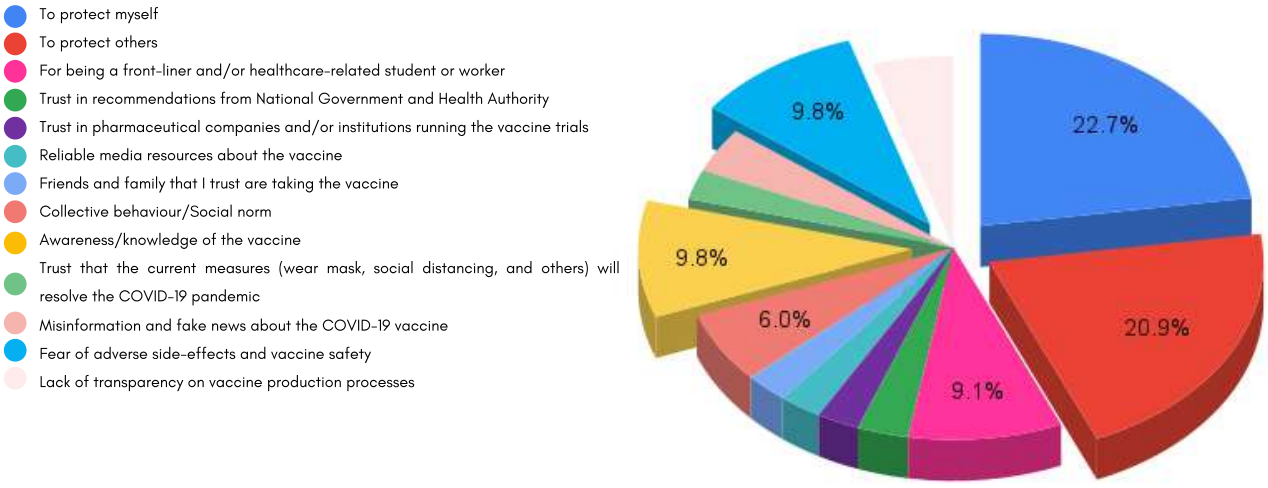


Chart 26: Top reasons in South-East Asia for youth with high school (or higher scholarity) to vaccinate

into account, the trend observed is largely similar (refer to Chart 26).

Countries within South-East Asia, like Indonesia, were found to have poor compliance in public health measures, especially during the early stages of the pandemic. Alongside this, the lack of enforcement and contextualization of public health measures enabled the rapid spread of the virus. The failure to build trust with the public, especially Youth, before the pandemic, together with the poor management of the spread of the virus contributed to a lack of public confidence in the government. As such, it is expected that youth will be less receptive and confident to get vaccinated.

In this survey, South East-Asia presented notable differences in the timeframe to vaccinate. Among survey participants who believe in the success of the vaccine and desire to take it, there was an observed significant shift to wait between 3 and 12 months or even longer, with some expressing more time needed before making a decision to vaccinate or not. This finding highlights the lack of public confidence in vaccines, which may be attributed to mistrust in their respective country's government. The largely observed "wait and see" approach is likely to slow down COVID-19 vaccination roll-out in South-East Asia. In return, this could further prolong the financial, social, and health impacts brought about by COVID-19 if the pandemic were to lengthen in duration.

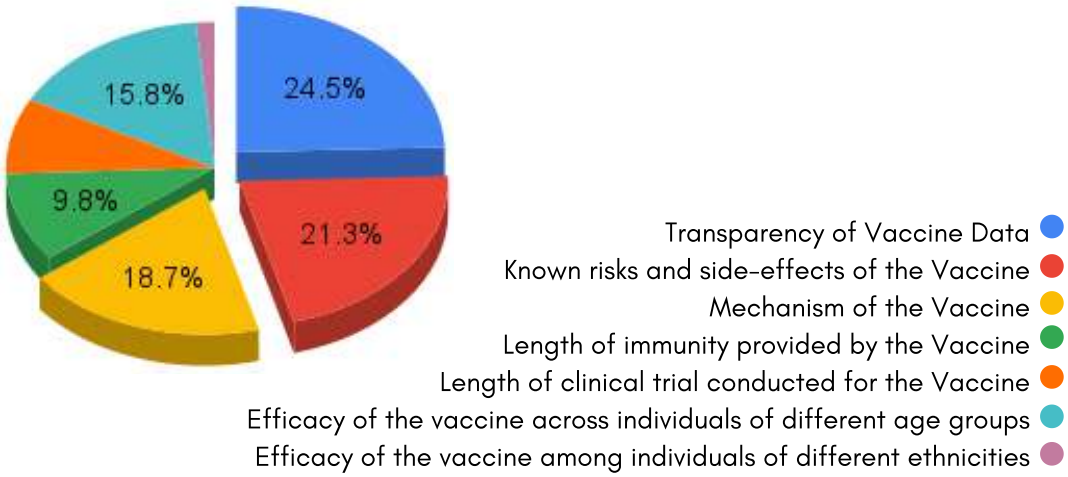


Chart 27: Top factors in South-East Asia youth with high school (or higher scholarity) consider before vaccinating

The main factors youth in South-East Asia consider before getting vaccinated do not deviate too much from larger worldwide trends (Chart 27). The main factors that were taken into consideration were:

- transparency of vaccine data (22.3%),
- the known risks and side effects of the vaccine (24.2%), and
- the mechanism of the vaccine (16.8%).

Communication campaigns in South-East Asia that aim to promote vaccination among youth should address these issues since they are likely to influence young people's decisions on getting vaccinated.

It should be noted that there was an overall greater number of survey respondents identifying as male than female in South-East Asia (Chart 28), which differs from other regions, where there were more female survey respondents. Female respondents in South-East Asia were slightly more likely to factor the mechanism of the vaccine in their decision-making.

Notably, this calls upon health authorities and governments to tailor communication strategies to include more comprehensive information detailing the different mechanisms of vaccines, especially for the females of this region.

Youth in South East Asia with high scholarity who believe in the vaccine and want to take it consider transparency of vaccine data as one of the most important factors to consider prior to vaccination. Likewise, this similar trend can be observed in the Western Pacific region (next section of the report). This was also the case for those who may believe in the vaccine and may want to take it.

For those who did not believe in the vaccine and did not want to take it, the most important decision-making factors were transparency of vaccine data, known risks and side effects of the vaccine, and the mechanism of the vaccine. The efficacy of the

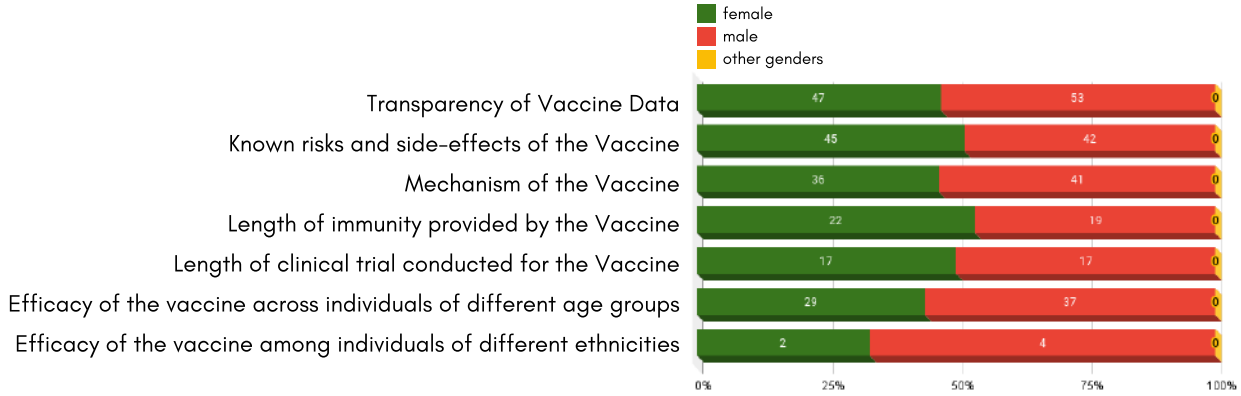


Chart 28: Top factors in South-East Asia youth with high school (or higher scholarity) consider before vaccinating considering gender

vaccine among individuals of different ethnicities was the least important decision-making factor among youth respondents with higher scholarity.

Respondents who wanted to vaccinate as soon as possible (Chart 29) reported transparency of vaccine data and known risk and side-effects of the vaccine as the most important factors to consider before vaccination. Those between 3 and 12 months and those who stated that they needed more time to consider indicated risks and side-effects of the vaccine as the most important factor.

Compared with other regions, greater levels of mistrust within the region signifies the compelling need to consider greater transparency in data on vaccines. This is an important factor to consider when designing communication strategies which might greatly influence youth in South-East Asia to take the vaccine.

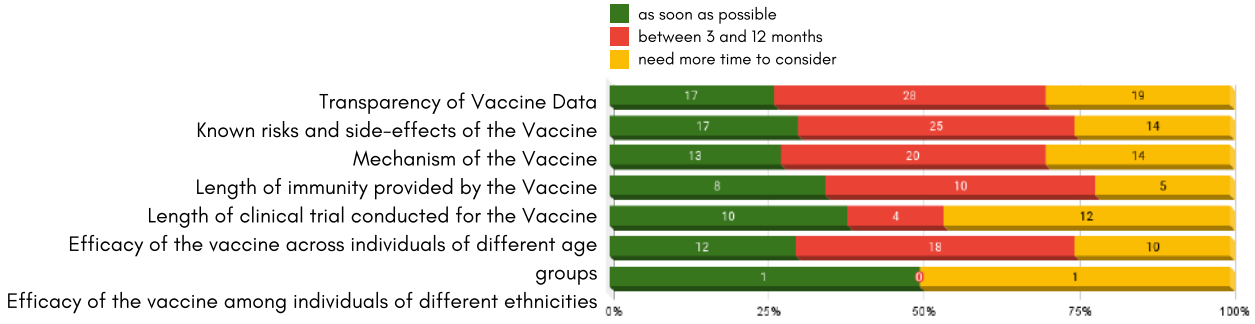


Chart 29: Top factors youth in South-East Asia with high school (or higher scholarity) consider before vaccinating considering timeframe

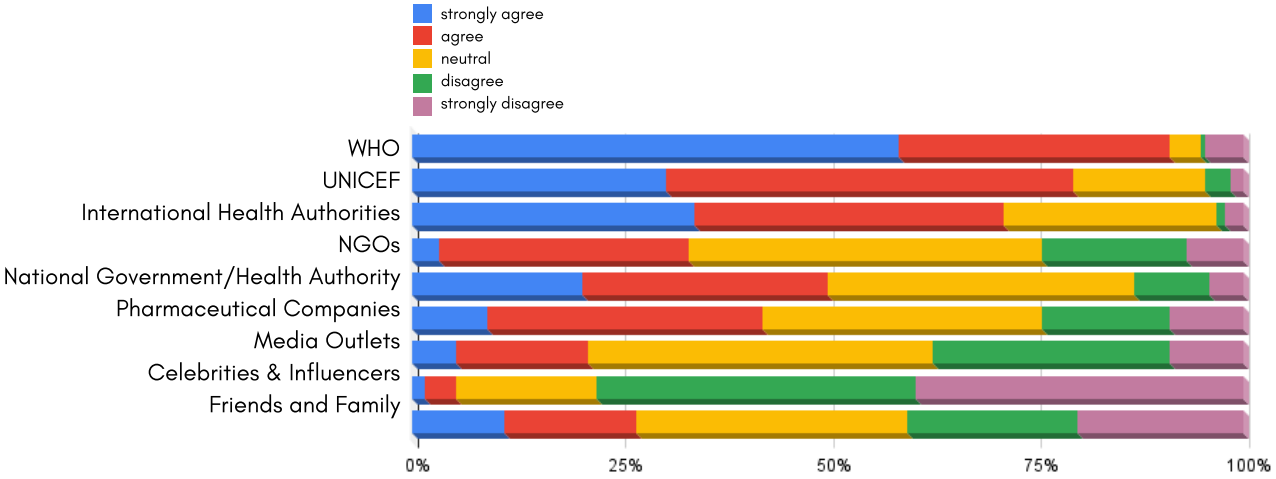


Chart 30: Most trusted information sources in South-East Asia among youth with high school (or higher scholarity)

For youth with higher scholarity in South-East Asia, the main trusted sources of information (ordered from highest to lowest) were (Chart 30): the WHO, UNICEF, and International Health Authorities, with respondents indicating they either strongly agree or agree. On the other hand, sentiments towards NGOs and National Government or Health authority were largely neutral. Respondents considered celebrities and influencers, media outlets, and friends and family, as the least trusted of sources of information.

SPIN-OFF INDIA

Authored by Alexandre do Amaral and Sheena Choudhary

India had over 500 survey respondents. This section of the report is dedicated to taking an in-depth look at the country's situation. According to the WHO, the country had over 31,000,000 confirmed COVID-19 cases and 412,531 deaths from 3 January 2020 to 16 July 2021. As of 6 July 2021, a total of 377,352,501 vaccine doses have been administered. India faced its own share of misleading claims and controversies regarding COVID-19 vaccines, ranging from claims of causing impotence, altering DNA, to containing microchips and pork gelatin.

This survey revealed that Indian youth are looking forward to getting vaccinated. The top reasons for youth to vaccinate are to protect themselves and to protect others, in line with global trends. There is also a considerably high percentage of survey participants that identified themselves as a front-line and/or healthcare-related student or worker.

January 2021 marked the 10th year since the last polio case in India. But in the face of COVID-19, as late as March 13th, 2020, the Indian government's response contradicted WHO's stance of treating it as a health emergency of international concern. After the lockdown was lifted allowing the country to get back to business, but the experts feared that the worst was yet to come. The laxity caused millions of Indians showing up unmasked and flouting the social distancing norms at packed election rallies and Kumbh Mela, a religious event. The government did not call off the event, fearing the possible backlash from the Hindu community in a country with Hindu-majority, while neither having the facilities nor the human resource to test millions of devotees arriving. The event was later dubbed as a super-spreader.

The public health system in India crumbled with the rapid rise in cases.

India spends less than 2% of GDP on its healthcare system. The Prime Minister expressed gratitude to frontline workers, yet healthcare workers lacked support and were struggling with insufficient numbers of PPE kits, under-resourced healthcare infrastructure, and unmanageable workloads. Exactly one year later, in April 2021, the situation had worsened as the hospitals were stretched beyond capacity, and the staff was overworked. Repercussions of not prioritizing the healthcare woefully caught up in the worst times leaving the health system paralyzed with shortage of oxygen, beds, ICUs, ventilators, vaccines, and even space on cremation grounds. Social media was full of

desperate pleas for resources. The dead were abandoned in the hospitals, outside the cremation grounds, or were simply left in the rivers due to lack of resources to cremate them. The government shifted blame and deflected from its own responsibilities for creating an environment of mistrust and communal violence and its failure to address the lapses in the health management system.

A sudden and poorly executed 70-day lockdown was imposed on March 25th, 2020, three months after the first reported case of COVID-19 in the country. The situation worsened, while millions of migrants were left stranded, experiencing food shortages and loss of income. The easing of the lockdown was economically motivated", restrictions were relaxed, with communication to the public about health guidelines and the ongoing vaccination campaign. This survey revealed that Indian youth are looking forward to getting vaccinated. The top reasons (Chart 31) for youth to vaccinate are to protect themselves (21.7%) and to protect others (17.2%), in line with global trends. There is also a considerably high percentage of survey participants that identified as a front-line and/or healthcare-related student or worker (16.7%).

It is important to note (as shown in chart 39) the main reasons motivating youth to decide against or be uncertain about getting vaccinated, which include: fear of adverse side-effects and vaccine safety and the lack of transparency in vaccine production processes.

According to data presented to the Adverse Events Following Immunisation (AEFI) Committee, by the end of March 2021, 180 people had died, 617 severe and serious adverse events (SAEs) had also been reported, after getting vaccinated. Around 276 AEFI hospitalizations occurred in less than three days after the vaccination, with a total of 305 people affected. According to the CoWin

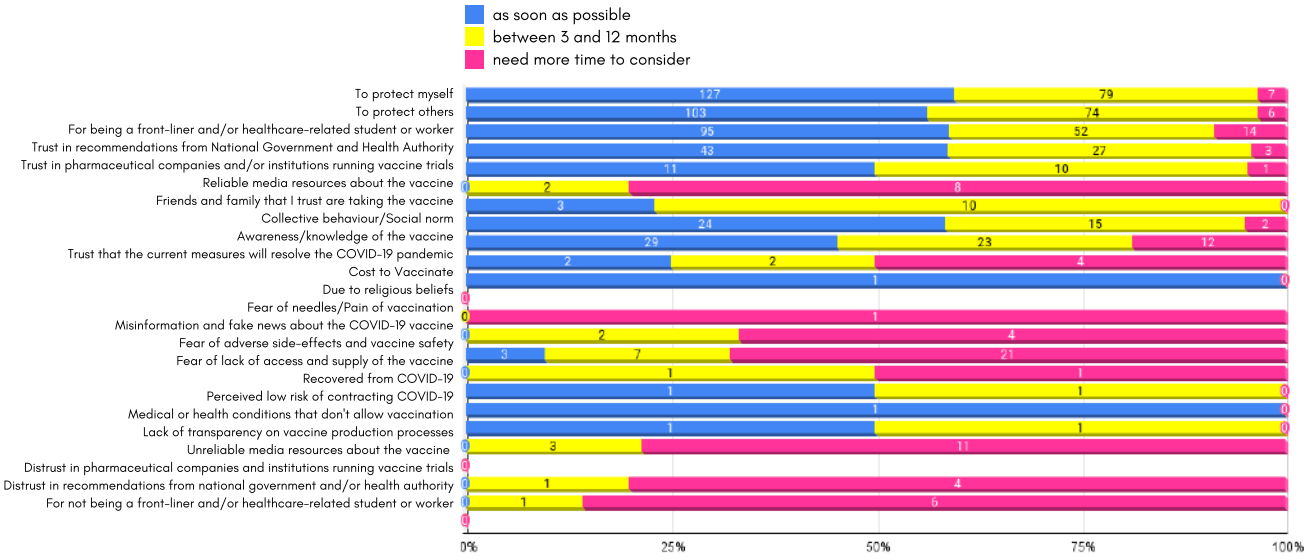


Chart 31: Top reasons in India for youth with high school (or higher scholarity) to vaccinate considering timeframe

platform, as of 3 April 2021 more than 23,000 cases of adverse events have been reported by 684 districts since the beginning of the vaccination drive. As per the data, only 700 cases of these cases (9.3 cases per million doses administered) were reported to be of severe nature.

The main factors Indian youth consider before getting vaccinated do not deviate too much from the global trends (Chart 32). These factors include:

- the known risks and side effects of the vaccine (25.1%);
- transparency of vaccine data (21.1%);
- The mechanism of the vaccine (15.8%).

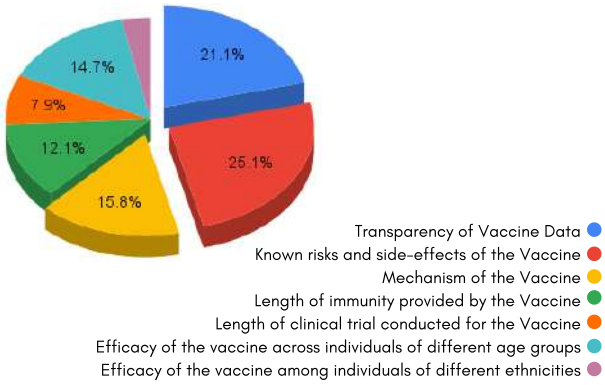


Chart 32: Top factors in India youth with high school (or higher scholarity) consider before vaccinating

India had its share of controversies around the vaccine, including pressure from the government on Bharat Biotech, a big pharma company involved in developing the vaccine, to rush the development of the vaccine, as well as disinformation about adverse reactions to the vaccine. The homegrown Covaxin was approved by India's leading drug regulator- Central Drugs Standard Control Organization (CDSCO) in January for emergency use before the third phase trials were completed or data for the second phase trial was even published. This hasty approval and lack of transparency was spearheaded by the accusations of premature rollout of the vaccine under pressure of the government and competitive drive of Bharat Biotech, which led many people, especially health workers, to refuse the vaccine. Two weeks after the rollout of the Indian vaccine, only half the targets were met, due to lack of accountability and opaqueness of vaccine data and processes. During this time, Covishield manufactured by the Serum Institute of India was being taken out of circulation by at least a dozen EU nations.

The government continued to insist that both vaccines are safe. Thus, it is crucial to anticipate and address young people's concerns regarding the vaccine. Communication campaigns in India that aim to promote vaccination among youth should address the misleading claims of impotence, DNA alteration, and other conspiracies related to the vaccine.

When analyzing the survey results by gender, we see the same factors (known vaccine risks and side-effects, transparency of vaccine data, and the mechanism of the vaccine) being relevant across genders. When it comes to how soon youth respondents in India want to get vaccinated (Chart 33), nearly 50% of them indicated they would do it as soon as possible. However, the other half of the youth population is still cautious due to factors enumerated in the graph below.

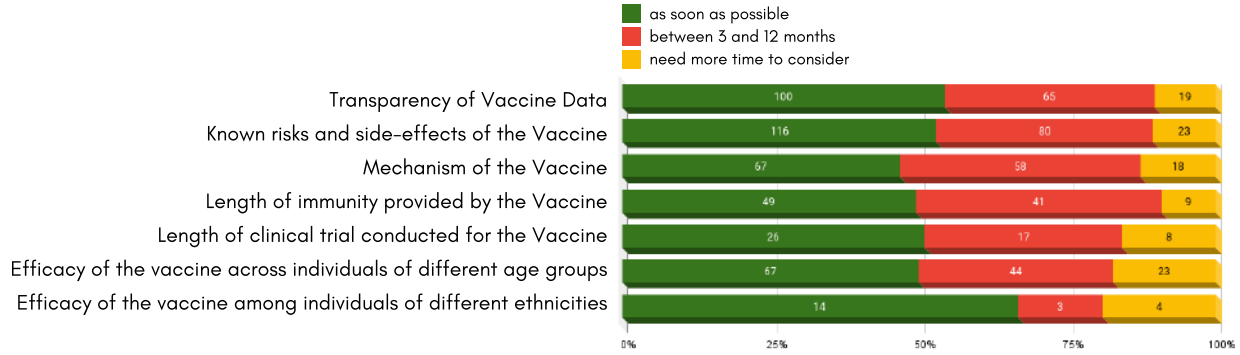


Chart 33: Top factors youth in India with high school (or higher scholarity) consider before vaccinating considering timeframe

A number of interesting insights can also be drawn from the survey regarding the information sources youth consider reliable in India. The main trusted sources of information were very similar to global trends (Chart 34).

Culture has a significant impact on youth's social behaviours. Friends and family ranked higher as trusted sources of information than NGOs, pharmaceutical companies, and even media outlets (with the media scoring especially low).

Despite the unclear information and statements from the government around the pandemic, trust in the national government and health authorities remained considerably high among youth respondents. Shortly after the initial lockdown, the Prime Minister urged the big media houses to "refrain from negative coverage" of COVID-19. The government understood the impact of COVID-19 during each wave through misrepresentation and opaqueness of data. A false sense of relief, victory and security prevailed in the country when the government lifted the lockdown, leading to a spike in April 2021 following the political and religious mass gatherings.

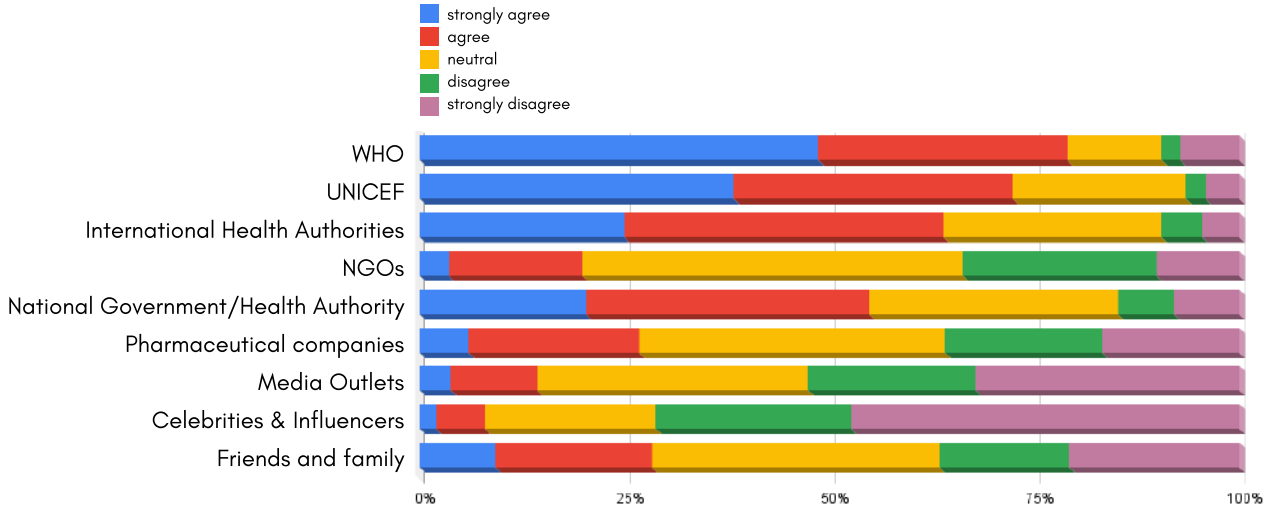


Chart 34: Most trusted information sources in India among youth with high school (or higher scholarity)

WESTERN PACIFIC

Authored by Ian Soh

In this survey, the Western Pacific region had over 800 respondents. The Western Pacific region has confirmed more than 3.6 million COVID-19 cases and 56,000 deaths, as of (July 2021).

Countries within the Western Pacific region, like Singapore have been known to impose strict public health measures very early on in the pandemic. Despite being the same region which first detected cases of COVID-19, the number of established cases and deaths is lower compared to other regions. Decisive decision making by national governments and experience from the previous 2002-2004 Severe Acute Respiratory Syndrome (SARS) outbreak likely help explain the overall positive public compliance to public health measures.

Even prior to the announcement of the first successful COVID-19 vaccine in November 2020, the much anticipated COVID-19 vaccine was already branded by the media and WHO as one of the essential means to help revitalise the economy. According to UNDP, the COVID-19 has had a significant impact on economies and industries in the Asia Pacific region, including aviation and hospitality. As such, it is expected that the public will be generally more receptive to the uptake of COVID-19 vaccines to support economic recovery and a return to normalcy.

While youth survey respondents in the Western Pacific region are looking forward to getting vaccinated, there are notable differences in the timeframe to vaccinate. Importantly, pertaining to this region alone, this was also the same factor which motivated individuals to vaccinate. Given the interest in vaccines among youth in the Western Pacific, communication strategies should aim to foster greater vaccine literacy and understanding to promote greater vaccine uptake among youth.

Compared to other regions, there was a significant portion of survey participants that expressed a desire to wait 3 to 12 months to

Compared to other regions, there was a significant portion of survey participants that expressed a desire to wait 3 to 12 months to get vaccinated, with some expressing more time needed before making a decision to vaccinate or not. The observed "wait and see" behaviour could potentially slow down COVID-19 vaccination roll-out in the Western Pacific. In turn, this could prolong further financial impacts brought about COVID-19 if the pandemic were to lengthen.

get vaccinated, with some expressing more time needed before making a decision to vaccinate or not. Alarmingly, this finding, which highlights the likely rate of uptake of the vaccine, fails to align with our previously established overall positive belief and desire by youth in the Western Pacific to vaccinate. Countries in the region should take the paradoxical interest in the vaccine among youth with caution as anticipated "wait and see" behaviours among youth may hamper efforts to quickly inoculate the population when vaccines are made available.

Youth in the Western Pacific are primarily motivated to vaccinate to protect themselves (23.5%) and to protect others (14.1%), which aligns with global trends (Chart 35). Uniquely, there is also a considerable proportion of youth who indicated an interest to vaccinate because of their awareness or knowledge of the vaccine (11.2%). Unlike other regions, there seems to be a greater percentage of survey participants that likely trust recommendations from the National Government and/or Health Authority (7.0%) than those who indicated to be a front-line and/or healthcare-related student or worker (16.2%). As shown below, when scholarity is taken into account, the trend observed is largely similar.

There is a noticeable greater spread of youth who believe in a vaccine and want to take it. The high levels of vaccine acceptance could be explained by the high 84% Hepatitis B immunization coverage in the Western Pacific. Previous experiences of successful vaccination campaigns may translate to general awareness and acceptance of the benefits of vaccinating among youth.

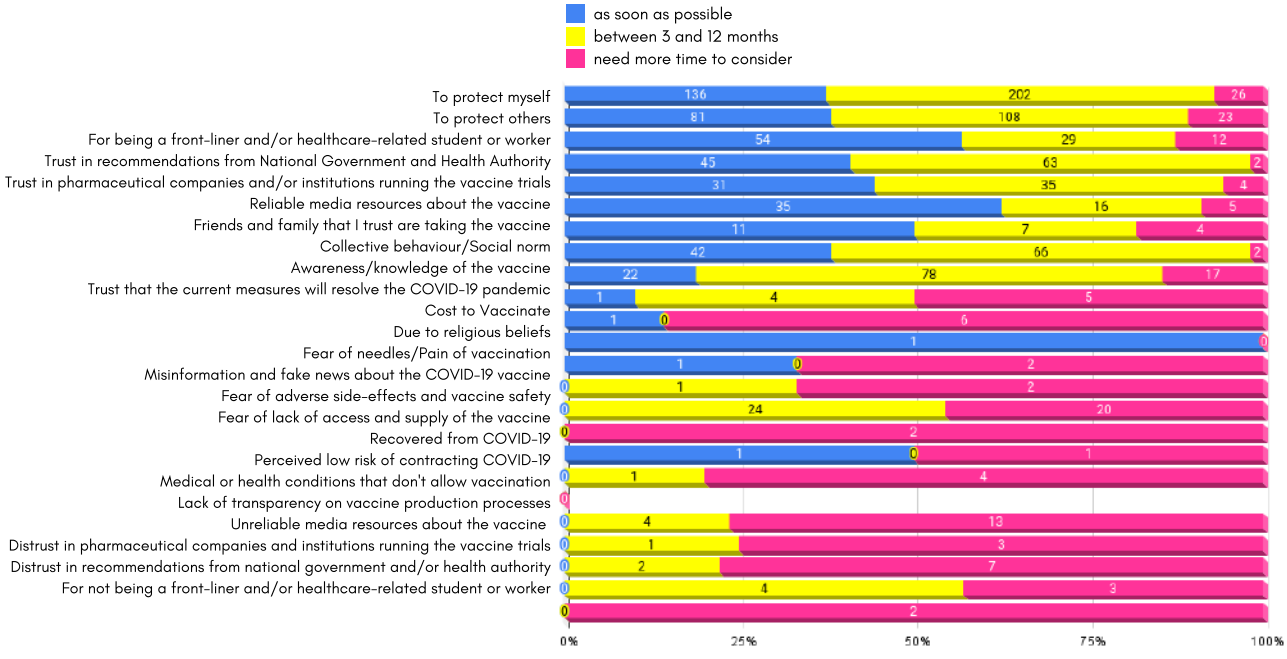


Chart 35: Top reasons in Western Pacific for youth with high school (or higher scholarity) to vaccinate considering timeframe

The main factors youth in the Western Pacific consider before getting vaccinated do not deviate too much from the larger worldwide trends. The factors that were mainly taken into consideration were the known risks and side effects of the vaccine (18.7%), transparency of vaccine data (20.8%), and (at a slightly higher rate compared to the global trend) the mechanism of the vaccine (13%) and efficacy of the vaccine across individuals of different age groups (16.6%). As shown below, when scholarity is taken into account, the observed trend is largely similar. Given the earlier suggested behaviour by youth in Western Pacific to delay the uptake of the vaccine, it is imperative to address potential concerns youth may have regarding the development, risks, and side effects of COVID-19 vaccines. Messaging campaigns targeting youth in the Western Pacific region must address the aforementioned factors in order to promote vaccine trust and uptake among youth.

There was an overall greater number of female survey participants in Western Pacific. Female respondents were more likely to consider length of immunity as a deciding factor compared to female respondents globally. Youth in Western Pacific with high scholarity who believe in the vaccine and want to take it (Chart 36) selected the transparency of vaccine data as the most important factor to consider prior to vaccination. For those who did not believe in the vaccine and did not want to take it and for those who may believe in the vaccine and may want to take it, the most important factor was the efficacy of the vaccine across individuals of different age groups.

Despite varying views and beliefs on taking the vaccine, a similar trend was observed in the United Kingdom as well, where youth with higher scholarity reported the least important factor as the efficacy of the vaccine among individuals of different ethnicities.

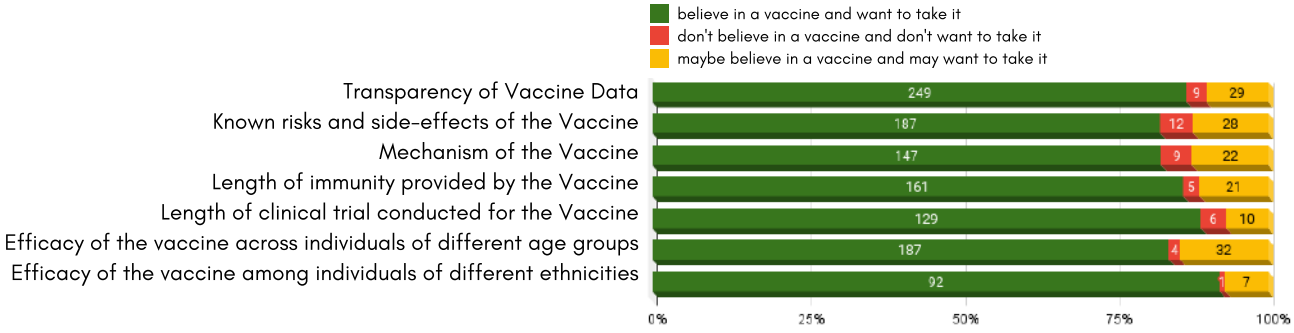


Chart 36: Top factors in Western Pacific youth with high school (or higher scholarity) consider before deciding whether to vaccinate or not

Those who want to get vaccinated as soon as possible or between 3 and 12 months reported transparency of vaccine data as the most important consideration before vaccination. Whereas those who stated that they needed more time to consider selected known risks and side-effects of the vaccine as the most important factor for consideration.

The main trusted sources of information (Chart 37) was the WHO, followed by UNICEF with the highest number of respondents reporting strongly agree, agree and agree respectively. An important point to consider is that there was substantial trust observed for information from friends and family.

This is vital to take into account when designing communication strategies to promote uptake of vaccines in the region. On the other hand, survey participants' sentiments towards media outlets and NGOs, as trusted sources of information, are largely neutral, Celebrities and influencers are the least trusted sources of information. On the other hand, survey participants' sentiments towards media outlets and NGOs, as trusted sources of information, are largely neutral. Celebrities and influencers are the least trusted sources of information.

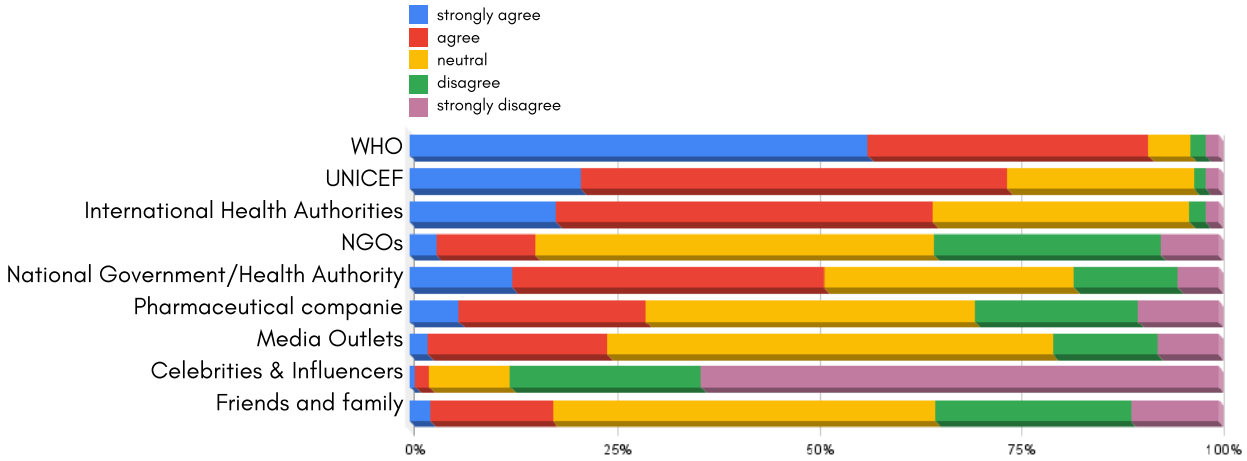


Chart 37: Most trusted information sources in Western Pacific among youth with high school (or higher scholarity)

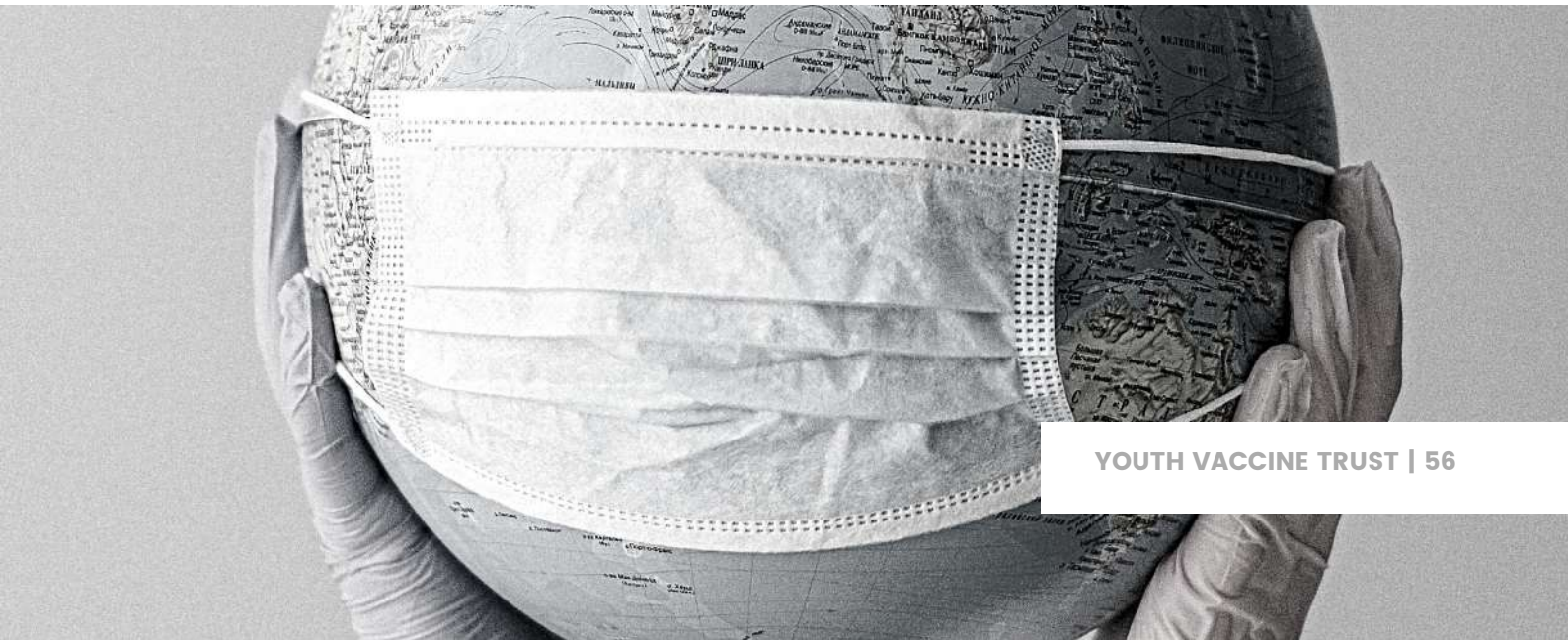
DISCUSSION AND RECOMMENDATIONS

Authored by Dr. Beatrice Bonami, Bushra Ebadi, Dr. Saad Uakkas, Eglė Janušonytė, and Lucy Fagan

The results of our survey have shown that the majority of youth respondents worldwide are willing to vaccinate. Protection (of self and others) was the top reason motivating youth to get vaccinated against COVID-19. Other reasons, such as being a frontline and/or healthcare student or worker; trust in national government, health authorities, pharmaceutical companies, institutions running vaccine trials, media, and family and friends; collective behavior and/or social norms; and awareness/knowledge of the vaccine featured less prominently but were still relevant factors influencing decisions to vaccinate or not. The data demonstrates that youth consider their own and others protection as a priority, followed by trust in media, governments and/or health authorities/organizations.

However, trust in institutions has been a controversial aspect of youth decision making even prior to the COVID-19 pandemic. The 2020 Edelman Trust Barometer reports that despite a strong global economy and near full employment, none of the four societal institutions that the study measures—government, business, NGOs and media—is trusted among all age ranges. The cause of this paradox can be found in people's fears about the future and their role in it, which is a wake-up call for these institutions to invest in and make concerted efforts to effectively build trust through competent, ethical, transparent, and accountable practices. With the ongoing COVID-19 pandemic, the level of trust in the aforementioned four institutions was also associated with the level of transparency of information shared.

The data demonstrates that youth consider protection as a priority, followed by trust in media, governments and/or health authorities/ organizations.



According to the 2021 Edelman Trust Barometer, level of transparency is proportionate to the level of ethical principles.

For the small portion of respondents who indicated they would not get vaccinated, the "mechanism of the vaccine" and "length of vaccine clinical trials" were the top factors influencing their decision-making. These respondents also cited "fear of adverse side-effects and vaccine safety", "lack of transparency on vaccine production" and "distrust in national governments, health authorities and pharmaceutical companies" as the main reasons informing their decisions to not vaccinate at all. This specific data brings us back to the discussion of mistrust among young people (potentially more emphatic among those who are marginalized or excluded), which slows down or halts vaccination rollouts since people are not completely confident in government advice. Information that has emerged since the beginning of 2021, such as new COVID-19 variants, misunderstandings about herd immunity and vaccines' mechanisms, and adverse side effects, can influence the development and implementation of effective immunization processes.

For those who are undecided as to whether they will or will not vaccinate, the inaccessibility of vaccines, whether it relates to its cost, availability, or transparency are seen to be key factors influencing their decision-making. These respondents may also feel a lower sense of urgency in getting vaccinated, as many cited not being a frontline or healthcare student or worker (only 8.2% of youth have declared to be a frontline/health care worker/student) as an important reason for deciding to vaccinate (or not).

Knowledge, attitudes, behaviours, and awareness about the vaccine (and COVID-19 in general) play an important role in immunization processes, since the vaccine will most likely not have an immediate effect and will need to be accompanied by other ongoing health and safety measures. Expectations that the COVAX would be a solution to the COVID-19 pandemic may derive from people confusing the vaccine as a cure instead of as a mechanism to contain the spread of the disease and to help minimize casualties. This increases the urgency of ensuring appropriate, tailored, and timely communication strategies towards youth. In that regard, this survey offers relevant insights on health communication and information based on data from respondents around the world.

In addition to communication strategies, the related literature and survey results point to the necessity of creating tools and/or systems of social listening to inform public policies. Many technologies such as Artificial Intelligence, Blockchain and Big Data can help institutions/organizations to co-create, with civil society, content and solutions towards the COVID-19 pandemic, especially among youth. However, algorithms have also proven

to be biased in many contexts, since they are mainly elaborated and created in the Global North and with data that is either unrepresentative and/or governed, designed, and implemented inequitably. It is therefore crucial to fund research that addresses the harms and risks of emerging technologies on marginalized individuals and communities, ensuring that such initiatives are co-developed with these communities and with their consent and leadership. Important considerations such as gender equity, traditional and Indigenous knowledge, justice, equity, and the experiences of people who lack reliable and quality access to the Internet or political representation should be integrated into and meaningfully inform this research. Following the results of the survey governments and international institutions should invest in developing primary and secondary education curricula focusing on health and information literacy, especially as it relates to n COVID-19. As was the case with past disease outbreaks, the COVID-19 will likely take a considerable amount of time to resolve. Furthermore, our survey revealed that much of the information inaccessibility comes from the institutional sphere (considering the 4 institutions in the 2020 Edelman Trust Barometer); literacy programs tailored to communities' necessities and perceptions of risk can help address this particular issue.

The development and implementation of a robust health and information literacy curriculum (potentially promoted and funded by governments and/or international organizations) requires capacity building among community leaders to become "COVAX Managers". This idea is inspired by the "WHO Infodemic Manager Training" (launched in 2020), a capacitation program with the intent of covering a diverse spectrum of infodemic management skills, with a focus on enabling people to apply infodemic management interventions and practices to promote individual and community resilience in the face of infodemics, including dis- and misinformation. This program also promotes individual self-sufficiency for self-protective health behaviors. This would be especially appealing to youth who act as leaders in their communities, enabling them to raise awareness of vaccine literacy issues and tailoring initiatives to the needs and experiences of their communities accordingly.

Many technologies such as Artificial Intelligence, Blockchain and Big Data can help institutions/ organizations to co-create, with civil society, content and solutions towards the COVID-19 pandemic, especially among youth. However, algorithms have also proven to be biased in many contexts, since they are mainly elaborated and created in the Global North and with data that is either unrepresentative and/or governed, designed, and implemented inequitably.

Open communication plays a pivotal role in increasing youth vaccine trust and acceptance. Continuous sharing of data and updates on the effects of vaccines as more people continue to get vaccinated should be

prioritized to reassure youth of the safety and efficacy of vaccines, especially among LMIC youth who are more likely to prefer delaying getting the vaccine when it becomes available to them. International health authorities and organizations including the WHO, UNFPA, and UNICEF have a key role to play as the most trusted sources of information among youth. National governments and health authorities should ensure more inclusive and open communication strategies to address the low levels of trust they experience among youth. Such strategies can involve meaningfully engaging with youth as stakeholders and harnessing their potential to optimize vaccination communication and distribution. Providing spaces for youth networking and exchange can aid in bridging the gap in knowledge and willingness of different youth groups to vaccinate.

As of 24 June 2021, 18 different vaccines against COVID-19 were rolled out globally, the majority requiring administration of 2 doses in order to achieve the intended effect. In total, over 929 million doses of the vaccine were provided globally (6.9 doses for 100 people). Moreover, with the world's largest population of young people in the history of the planet, it is important to acknowledge the part young health professionals and care workers play in safeguarding people's lives and managing the pandemic. Despite the current year designated as the Year of Health and Care Workers by the WHO, the vaccination status among youth has not been evaluated on a global or regional scale, presenting an important area for further research. Our study presents an important perspective to be taken into consideration by decision makers aiming to improve vaccine compliance and uptake among youth.

Open communication plays a pivotal role in increasing youth vaccine trust and acceptance. Continuous sharing of data and updates on the effects of vaccines as more people continue to get vaccinated should be prioritized to reassure youth of the safety and efficacy of vaccines, especially among LMIC youth who are more likely to prefer delaying getting the vaccine when it becomes available to them.

With the ongoing COVID-19 pandemic, the level of trust in institutions is associated with the level of transparency of information shared.

STUDY LIMITATIONS AND FUTURE WORK

Authored by Caio Machado and Ian Soh

In order to conduct this exploratory analysis, we disseminated our sample through social media in various groups. This snowball sampling technique is particularly useful to reach into a wide variety of populations and groups, leveraging the multiple networks of respondents and spreading out to the rest of society. Using this method, we have obtained a high number of responses (11.565) from respondents around the world, which we consider a successful campaign and a response rate above what we had anticipated. These results allow us to better understand the different concerns and perspectives of young people around the world, and thus, have a greater sense of the main issues and factors that need to be accounted for when evaluating the effectiveness and security of the vaccines.

There were several limitations in our survey. First, we cannot ensure that the data collection was perfectly random, and therefore we cannot draw statistically significant conclusions from the data we display. This limitation allows us to draw profiles, but we cannot extend this reading to countries, which is an extraordinary feat in itself, and allows us to draw rich readings and comparisons in our work. We do not have, other populations, such as young people who do not have reliable access to the internet. The survey did not reach youth who lack access to technology and reliable internet connection. In addition, we recognize that much of the problems regarding COVID-19 vaccine access to information are from regions with poor connection to the internet [if any], and we were not able to assess how these communities make decisions on whether to vaccinate or not. We have successfully reached approximately 100 countries, which is an extraordinary feat in itself, and allows us to draw rich readings and comparisons in our work. We do not have,

We recognize that much of the problems regarding COVID-19 vaccine access to information are from regions with poor connection to the internet [if any], and we were not able to assess how these communities make decisions on whether to vaccinate or not.

however, a representative study, since we do not have a consistent response from all countries and the numbers itself are not sufficient to offer a regional or national representation.

While our survey reflects respondents' age, education and gender, we did not collect data on respondent comorbidities [of any nature], disabilities, ethnicity, religion/faith, housing status, income, and size of municipalities. This survey did not assess these groups' reasons to vaccinate or not and the main factors influencing their decision making processes, which is a considerable limitation of our study. We understand that these factors could also influence individual perceptions of risks and benefits of vaccine use, and could influence the results of the survey.

Future work could include localized research in each country to map out youth information systems and access to foster a greater understanding of the environment in which youth make health decisions. It would be a great advance to our work to include probability samples of each population and understanding how young people's behaviour evolves over time. This research has been highly effective in highlighting the main concerns and decision-making factors regarding vaccination. Mapping these processes of decision-making in manners representative of each population, and repeatedly evaluating over time, would be valuable for governments, public health organizations and authorities, and all other actors involved in promoting vaccination campaigns and awareness.

ANNEX A
SURVEY MASTER COPY

Vaccine Literacy: Determining vaccine confidence among Youth, raising awareness and enhancing communications surrounding vaccines - [up to 5 mins]

[Description]:

Following the spread of COVID-19 in the world, young people have demonstrated resilience in the face of economic climate and social crisis, compounded by the effects of COVID-19. While COVID-19 makes no distinction for race, ethnicity, religion, gender, authority and social class, it disproportionately impacts systematically marginalized individuals and communities. Different levels of literacy, education, and access can impact people's ability to understand critical information and make informed decisions about their health and well-being. Attitudes and beliefs towards COVID-19 vary within and between communities. As such, it is important for us to identify and understand such perceptions in order for us to collectively improve our approach to vaccine literacy at the community, national and global levels.

With resources invested into research to develop a vaccine for COVID-19, this research is vital and timely, and complements the work being done by leaders and stakeholders to effectively support and prepare strategies to tackle vaccine literacy among populations. The following survey was developed through a partnership of Youth representatives from #MoreViralThanTheVirus Movement; HILA Alliance; UNMGCY; IFMSA; Talk Up Yout; African Union Youth Envoy; Global Shapers Copenhagen Hub and MILEN Network;

We aim to assess the factors that contribute to people's decisions regarding vaccines and identify informational trends based on the data collected through the survey. The results of the survey will be used to help inform the design of effective communication strategies on the COVID-19 vaccine and enable people to make informed decisions about it.

This survey is anonymous and we respectfully ask all of you to answer these questions as truthfully as possible. The results of this survey will be collected, analysed and made accessible to a team of experts and researchers on health and information literacy. The results of this survey may also feed into future studies by other organizations and institutions. If you have any queries with regards to this survey, please contact globalyouthsurvey@gmail.com.

#	QUESTION	PRESENTATION
01	**Which country are you based in?**	Dropdown
02	**How old are you?** A. Below 18 years old B. Between 18 to 30 years old C. Between 31 to 45 years old D. Between 46 to 60 years old E. Over 61 years old	Dropdown
03	**To which gender identity do you most identify?** A. Male (cis-Male) B. Female (cis-Female) C. Trans Male D. Trans Female E. Non-binary F. Gender non-conforming G. Two Spirit H. Other I. Prefer not to disclose J. Prefer to self-identify	Dropdown
04	**What is your highest attained level of education?** A. Primary education B. Secondary education (EG. GCSE or equivalent) C. High school (EG. A levels, IB or equivalent) D. Bachelor or equivalent E. Post-graduation or equivalent (Masters, Ph.D., Doctoral Degree) F. Other graduate studies or equivalent G. None of the above	Dropdown

Section 1: General information

#	QUESTION	PRESENTATION
05	**With the ongoing development of a vaccine, do you feel more confident against COVID-19?** 1: Strongly Disagree 5: Strongly Agree	Linear/ agreement scale
06	There has been a number of research and clinical trials conducted, and resources invested into the development of a COVID-19 vaccine. **Do you believe in a successful Vaccine?** A. Yes B. No C. Maybe	Multiple choice
07	**How likely are you to take the COVID-19 vaccine, once it has been developed, tested and approved?** 1: Very Unlikely 5: Very Likely	Linear/ agreement scale

Section 2: Trust towards COVID-19 vaccine
[Description]: In this section, we aim to assess the current attitudes, confidence and reactions towards the potential COVID-19 vaccine.

#	QUESTION	PRESENTATION
08	Based on your response above, please identify your top 3 reasons. Description: Reasons are ranked from Top = "Likely reasons to Vaccinate" to Bottom = "Unlikely reasons to Vaccinate". A. To protect myself B. To protect others C. For being a front-liner and/or healthcare-related student or worker D. Trust in recommendations from National Government and/or Health Authority E. Trust in pharmaceutical companies and/or institutions running the vaccine trials F. Reliable media resources about the vaccine G. Friends and family that I trust are taking the vaccine H. Collective behaviour / Social norm I. Awareness / knowledge of the vaccine J. Trust that the current measures (wear mask, social distancing and others) will resolve the COVID-19 pandemic K. Cost to Vaccinate L. Due to religious beliefs M. Fear of needles / Pain of vaccination N. Misleading information and fake news about the COVID-19 vaccine O. Fear of adverse side-effects and vaccine safety P. Fear of lack of access and supply of the vaccine Q. Recovered from COVID-19 R. There is a low risk of me contracting COVID-19 S. Medical or health conditions that don't allow vaccination T. Lack of transparency on vaccine production processes U. Unreliable media resources about the vaccine V. Distrust in pharmaceutical companies and institutions running the vaccine trials W. Distrust in recommendations from National Government and/or Health Authority X. For not being a front-liner and/or healthcare-related student or worker *Note: Please select only 3 of your best possible reasons.*	Checkboxes

#	QUESTION	PRESENTATION
09	**How quickly are you likely to take the COVID-19 vaccine, once it has been developed, tested and approved?** A. As soon as Possible B. Within 3 Months C. Within 6 Months D. Within a Year E. I will need more time to consider this F. I will be unlikely to take the COVID-19 Vaccine	Multiple choice
10	Who would you trust to provide information about the COVID-19 vaccine? If the vaccine was deemed suitable and safe for the population. A. World Health Organisation (WHO) B. UNICEF C. International Health Authorities (EG. IFRC) D. Non-Governmental Organisations (NGOs) E. National Government or Health Authority F. Pharmaceutical company responsible for making the Vaccine G. Media Outlets (EG. BBC, CNN) H. Celebrities & Influencers I. Friends and Family	Linear / Likert Scale
11	Which of the following are 3 factors you will consider before taking a vaccine? Description: Mechanism*: is simply the way how vaccines work. Efficacy^: simply describes how well vaccines work. A. Transparency of Vaccine Data B. Known risks and side-effects of the Vaccine C. Mechanism* of the Vaccine D. Length of immunity provided by the Vaccine E. Length of clinical trial conducted for the Vaccine F. Efficacy^ of the vaccine across individuals of different age groups G. Efficacy^ of the vaccine among individuals of different ethnicities *Note: Please select only 3 of your best possible factors.*	Checkboxes

[End of Section]