

COVID-19: Current situation and reasons for vaccine hesitancy

BACKGROUND

Yemen has experienced three waves of COVID-19 infections. So far, there is no information on the Omicron variant in the country and whether this will spark a fourth wave. Official case numbers are low, with only 10,000 across the period of the pandemic (WHO accessed 02/01/2022), but the reality of the COVID-19 situation in Yemen remains unknown because of the country's limited capacity to test and monitor the number of cases. Another reason is that in areas under the control of the de-facto authority (DFA) in the north of Yemen (also known as the Houthis), authorities deny the presence of COVID-19, and almost no testing for the virus is taking place. Yemen's northern governorates, where the Houthis are in control, are home to over 80% of the population – around 30 million people.

Vaccine rollout in Yemen is limited to only the southern governorates, where as at 2 December 2021, 4,774,000 vaccine doses have been allocated under the COVID-19 Vaccines Global Access (COVAX) initiative. Only 2.6% of Yemenis have received their first COVID-19 vaccine dose (WHO dashboard accessed 3/1/2022; Reuters COVID-19 Tracker accessed 06/01/2022).

WHO defines vaccine hesitancy as the delay in the acceptance or the refusal of vaccines despite their availability. The term covers the refusal to get vaccinated, delaying vaccination, accepting vaccines but remaining uncertain about their use, or using certain vaccines but not others. In 2019, before the COVID-19 pandemic, WHO named vaccine hesitancy as one of the ten major threats to global health (WHO 2016 and 31/12/2019). Research has found it to be a complex and dynamic social process that is context-specific and can change over time (TFO 08/03/2021).



About this report

This report aims to support humanitarian responders by explaining the barriers to vaccination in Yemen through a review and analysis of available information. It provides an overview of what is known about the COVID-19 situation in Yemen and how the pandemic has unfolded in the country considering the differences between its northern and southern regions, as well as differences over time. The report looks at the policies and initiatives of the respective authorities and the perceptions and behaviours of the population around the virus, particularly as they pertain to vaccine hesitancy.

Methodology: the report is based on qualitative investigation to understand the actions and thought processes around COVID-19 and vaccine uptake. The primary information sources were:

- in-depth interviews with seven key informants selected because of their deep contextual knowledge of Yemen, the health sector, and their experiences living in Yemen during the pandemic
- secondary data review focused on the social media monitoring and analysis of relevant political narratives.

Data regarding the progression of the pandemic and of vaccinations in the country is updated as at 3 January 2022 (WHO accessed 03/01/2022).

Limitations: data on vaccinations and COVID-19 case numbers changes rapidly. The number of COVID-19 cases officially reported and used here is also likely to be significantly lower than actual numbers given the reasons outlined in the report, including the absence of data from DFA areas.

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OVERVIEW: UNDERSTANDING COVID-19 AND LOW VACCINE RATES IN YEMEN

It is important to see COVID-19 within the overall context of the health system in Yemen, which is completely inadequate to cope with an epidemic. The conflict since 2015 has led to the collapse of basic social services, including Yemen's healthcare system. Many health facilities have been damaged or destroyed, and healthcare workers have suffered from inconsistent salaries. This situation has resulted in the decreasing availability of infrastructure and human resources for the provision of healthcare. Currently, only 50% of health facilities are fully functioning. Those that remain open lack qualified health staff, basic medicine, and medical equipment such as masks, gloves, and oxygen. Approximately 20.1 million people need health assistance, including 11.6 million people in acute need (World Bank 14/09/2021; OCHA 21/02/2021).

The reasons people have to not get vaccinated outweigh their reasons for vaccination. However, the fact that vaccination became required for those who want to work in Saudi Arabia is a compelling reason for many – including men from DFA-controlled areas who travelled to the Internationally Recognized Government of Yemen (IRG)-controlled areas – to obtain the vaccine.

Life in Yemen presents many immediate challenges (including security and livelihood), and COVID-19 is not foremost among them. In this context, considerations such as time away from work and transportation costs to reach a vaccination centre are deterrents.

Those least likely to be vaccinated may be most at risk of contracting the virus. Although data is not available, anecdotally, it appears most vaccine uptake has been by able-bodied men intending to work in Saudi Arabia rather than women, the elderly, or other categories of people. Women are the main carers within the household and are potentially more exposed to the virus as they care for anyone unwell.

The Muhamasheen (a known vulnerable group in Yemen because of their position in society and low economic standing) **may be at particular risk** because of their communal, crowded living conditions. While they are not deliberately excluded from vaccine administration, their awareness of the vaccine is extremely low. There have not been specific efforts to monitor the vaccination status of the Muhamasheen (KII 28/11/2021).

There is no COVID-19 vaccine rollout in DFA-controlled governorates. The DFA justifies the lack of vaccine rollout with Houthi narratives stressing that the virus is not present in northern Yemen, whereas the main reason is the refusal of the DFA to have WHO supervise the rollout.

The attitudes expressed about COVID-19 and vaccination by Houthi leaders are complex and at least partially driven by their political agenda. Vaccination is not against Islamic principles, but militant Islamic groups in the past have used vaccines to forward their political goals.

Understanding vaccine hesitancy in DFA areas is problematic because the vaccine is currently not being administered (or not available to the general public), and it seems unlikely for this situation to change soon. As a consequence, awareness campaigns and surveys on attitudes to the vaccine are not considered a priority by NGOs and international responders (KII 05/07/2021). This situation translates into a lack of publicly available data and research.

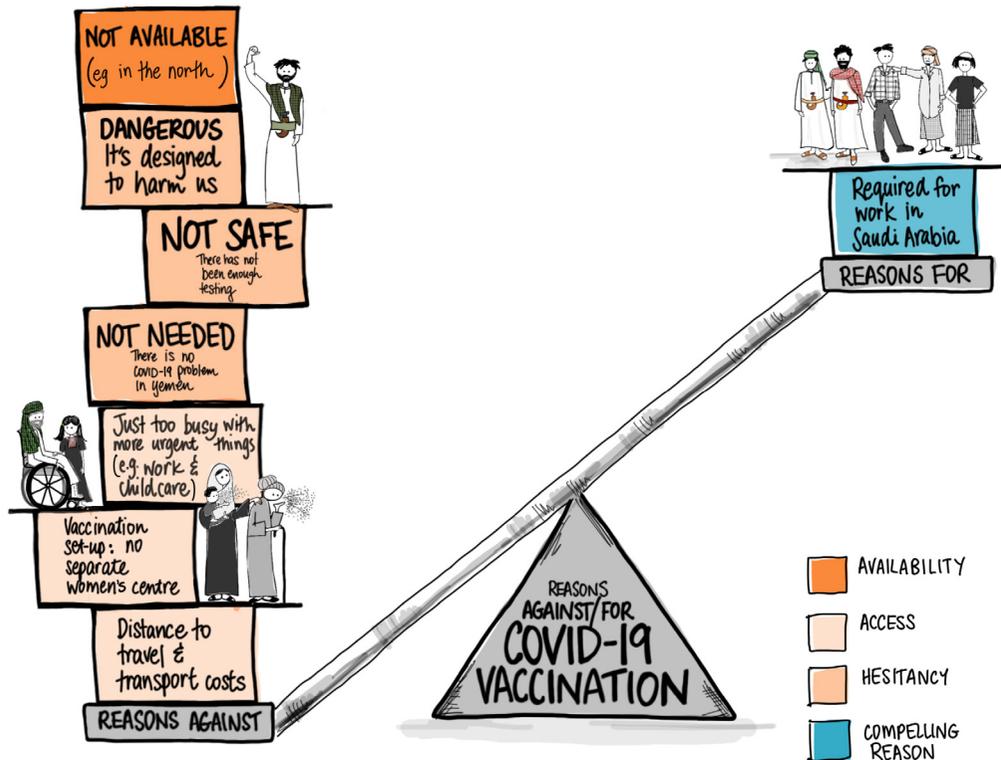
Over time, in comparing behaviours during the first, second, and third waves of COVID-19, people have demonstrated less concern about getting infected and less adherence to preventive regulations. There is also less effort by NGOs and respondents to provide clear information and dispel misconceptions about COVID-19.

AREA OF CONTROL	TOTAL POPULATION	HEALTH FACILITIES (HOSPITALS AND PRIMARY HEALTHCARE FACILITIES)	POPULATION PER HEALTH FACILITY
DFA areas	25,389,472	2,511	10,111
IRG/ Southern Transitional Council areas	5,344,726	769	6,950

Source: OCHA accessed 04/01/2022

Why vaccination rates are so low

Figure 1. In general, people's reasons to not get vaccinated outweigh their reasons for vaccination.



The reasons people in Yemen have for not getting vaccinated outweigh their reasons for vaccination. Reasons to not be vaccinated fit into three categories:

- **Vaccine availability:** are there sufficient vaccines for those willing to be inoculated? Are the Houthi authorities willing to have vaccines administered in the north?
- **Vaccine access:** can all those willing to get the vaccine be inoculated, respecting social and cultural norms and considering the distance, travel time, and other associated logistics and costs (including travel, accommodation, and loss of work)?
- **Vaccine hesitancy:** are there beliefs, perceptions, ideas, or information causing people to doubt the benefits and safety of vaccines or to reject vaccination for other reasons?

As long as they do not accept that vaccination is vital in reducing the impact and spread of COVID-19, people will only take up vaccination if they have a compelling reason to do so. The Saudi Arabian Government making vaccination mandatory for migrant workers on 7 May 2021 is an example of such a reason (Arab News 07/05/2021).

Vaccine availability and access

In IRG/Southern Transitional Council areas, vaccine supply became an issue between July–September 2021 because of a global shortage. Since then, availability has been more than the absorption rate (KII 28/11/2021).

There is no vaccine rollout in DFA-controlled areas, and vaccine availability remains a major obstacle. The attitude of the DFA towards COVID-19 mainly determines this situation. Coherently with Houthi narratives that the virus is not present in northern Yemen, the DFA has chosen not to engage in any COVID-19 vaccination campaign. Political considerations also underpin this approach. The DFA's refusal of the first batch of COVID-19 vaccines has followed a tug of war with WHO on the technicalities of vaccine administration, with the DFA refusing WHO supervision (HRW 01/06/2021; KII 11/06/2021). This hostile attitude towards the calls of international responders brings to mind previous disagreements around the provision of humanitarian aid in DFA areas (HRW 14/09/2020). Unconfirmed news reports describe the secretive inoculation of COVID-19 vaccines to a selected number of Houthi leaders and health workers (Al Arabiya 24/04/2021; KII 05/07/2021).

Houthi attitudes towards vaccines

The approach of the DFA towards vaccination campaigns is more nuanced than it appears, reflecting different sensibilities within the Houthi leadership (KII 11/06/2021).

The Minister of Health, Taha al-Mutawakkil, is a moderate politician who supports vaccination campaigns. In the past, he sponsored the polio vaccine personally (YouTube 25/11/2018). By the end of May 2021, he launched a new anti-polio campaign in Sana'a. Key informants believe that al-Mutawakkil would be favourable to the administration of COVID-19 vaccines (KII 11/06/2021; Iran Wire 16/03/2021).

This perspective is a minority position within the DFA. The prevailing orientation is to refuse the vaccine. As stated by Najib al-Qubbaty, the Deputy Minister of Health, the DFA's refusal of the vaccine is "semi-public" (Iran Wire 16/03/2021). In other words, Houthi leaders have only indirectly hinted at their refusal of the vaccine. For instance, when the UK pledged to send COVID-19 vaccines to Yemen, Muhammad Ali al-Houthi urged them to instead stop arms export. He described weapons as "more lethal" than COVID-19, arguing that they "kill the Yemeni people" (Twitter 05/02/2021). Such statements are in line with the position of Abdulmalik al-Houthi, leader of the Houthi movement, who declared that the "real virus is the war" (ACAPS 04/05/2021).

In 2017–2018, Houthi leaders negotiated with WHO over cholera vaccines during an outbreak that significantly affected the north of the country, with more than a million cases reported by January 2018. The DFA declared a state of emergency and requested 3.4 million vaccine doses from WHO. This request amounted to nearly all of the global stockpile (ASTMH 19/03/2018; BMJ Glob. Health 15/07/2019). After 500,000 doses were granted, the request was cancelled. Some pro-Houthi health authorities considered the vaccine ineffective based on previous campaigns conducted in several districts around Sana'a, which could have been the reason for the cancellation. This experience has possibly influenced Houthi attitudes towards the COVID-19 vaccine (KII 11/06/2021).

Vaccine access – or people's willingness to access vaccines – and vaccine perceptions are interrelated. Any doubts about the necessity or safety of vaccines discourage people from overcoming the practical challenges of getting vaccinated. There are multiple serious practical challenges in accessing vaccination in Yemen. Distances to vaccination centres are long, and travel costs are high because of fuel prices. Under the difficult economic conditions they face daily, households may not prioritise spending time and money on getting a vaccine they are not convinced is necessary. Many vaccination centres that were opened at the beginning of the rollout experienced a low turnout, resulting in a high vaccine wastage rate and the closure of these facilities. Once this connection was understood, vaccines were relocated to areas with higher demand (KII 28/11/2021).

Gender dynamics in COVID-19 vaccinations

Gender dynamics are one of the social obstacles to vaccination in Yemen. There was a lack of consideration in the planning of the vaccine rollout for the strict gender segregation in Yemeni society. More separated spaces for men and women could have enhanced the likelihood of women getting vaccinated. Some mitigation measures include the employment of female vaccinators (who were not available at all sites) and moving women ahead in queues in some vaccination centres to prevent them from waiting too long in the same areas as men (KII 28/11/2021).

Studies show that, in Yemen, men are prioritised within the household when it comes to healthcare (Sana'a Centre 20/07/2021). It is likely then that even with household acceptance of the need for vaccines, female family members will be vaccinated last.

When members of the household are sick, **women and adolescent girls are given primary caring responsibility** for them and are more exposed to infection (Sana'a Centre 20/07/2021)

Reasons for vaccine hesitancy

Across Yemen, a range of ideas (including misconceptions around COVID-19 vaccination) has taken hold. Some of these echo global rumours and concerns, some are more particular to Yemen, and many were found to be the same across both parts of the conflict divide.

The reasons for the low uptake of vaccines most often discussed by key informants in this research were similar to findings from a survey conducted in DFA-controlled areas in early 2021. In that survey, some interviewees also considered the vaccine a deliberate 'conspiracy' posing a threat to their health (Daraj 23/02/2021). The main reasons and perceptions outlined in key informant interviews were:

- **People are intrinsically afraid of new things.** Without an organised awareness campaign, it is difficult for people to find reliable official information regarding the pandemic and the vaccines developed to counter it.
- **Some people believe that the vaccine will lead to death, not immediately but after a period.** Several informants reported that the perception that instead of protecting someone, the vaccine will weaken the receiver's body and lead to death was particularly prevalent in Yemen. This assumption has often led to family and inter-household conflict because of the sense of worry the family and friends of a vaccinated person feel for the latter's wellbeing.
- **Some believe that the vaccination campaign is a project to cause infertility among Muslims.** Building on a previous assumption that the imposition of curfews, lockdowns, and limitations on peoples' movements were geostrategic plans to divert people's attention from the war being waged on Yemen, the hypothesis that vaccination programmes are being used as an undercover project to cause sterility among Muslims developed. Rumours on the potential of COVID-19 vaccines to cause infertility to both sexes have circulated worldwide on social media for months (DW 04/08/2021).
- **Others believe that the West is sending ineffective vaccines to Yemen.** In Yemen, there is well-recorded mistrust in medication manufactured in low-income countries, including India (KII 11/06/2021). The AstraZeneca vaccine made available to Yemen through the COVAX facility is COVISHIELD, which is manufactured in India, as opposed to VAXSERVIA, which is used and manufactured under that trade name in the EU. Aside from the identification of counterfeit COVISHIELD doses in a variety of countries by WHO, COVISHIELD was originally not recognised as part of the EU Green Passport Initiative (BBC 18/08/2021). While this decision has been reversed, it had already cast doubt on whether these vaccines were of the same quality as those made in the EU (Quartz 29/06/2021; Health Policy Watch 08/07/2021). This situation is one reason some Yemenis see the Indian-made AstraZeneca as less effective and having more side effects than other vaccines.

- **People in DFA areas also do not perceive COVID-19 as a threat.** The consequence of this low-risk perception is a complete lack of interest in the vaccine. When asked about the vaccine, people tend to reply, “We don’t believe COVID-19 exists” (KII 15/06/2021). The few informants from the north who expressed a view on the vaccine stressed the following points:
 - Vaccine acceptance was already low in Yemen even before the pandemic.
 - There is a belief that the COVID-19 vaccine is dangerous because it was not properly tested, especially on women.

COVID-19 MITIGATION MEASURES AND RESPONSE IN YEMEN

Evolution of COVID-19 in Yemen: The three waves of infection

Based on the spike in the number of cases, there have been three waves of COVID-19 in Yemen as at 3 January 2022:

- first wave: April–July 2020
- second wave: February–May 2021
- third wave: August–October 2021.

Across the country, the main difference between the first and second wave was how people changed their behaviour and adopted measures to prevent the spread of the virus. There was little change between the second and third wave.

Across all waves, the main difference between the north and the south was the stance adopted by authorities in terms of the source of the virus, its prevalence and prevention, and who controls the COVID-19 narrative.

The first wave: April–July 2020

Within two months of the first case being recorded on 10 April 2020, COVID-19 cases were detected in all IRG-controlled governorates except the island of Socotra. In Aden, health facilities were overstretched, and there were approximately 1,500 excess deaths in the city during April–July (estimated by observing burials through satellite technology) (BMJ Glob. Health 23/03/2021).

In DFA-controlled areas, Houthi leaders acknowledged that COVID-19 was a threat to the population but denied its presence in their territories.

There were some differences in the specific restrictions put in place by the respective authorities and the official rhetoric around the virus. In both areas of control, in the first wave:

- The respective authorities put some restrictions in place.

- Information campaigns conveyed messaging about infection prevention and hygiene.
- Some people observed the restrictions and adopted the advised behaviours.

The DFA enforced fewer measures than the IRG, and people in areas under DFA control were slightly less vigilant in adopting prevention practices. People did generally observe some degree of caution in both areas of control and changed their behaviours to the degree possible to prevent contracting the virus (ACAPS 04/05/2020).

The second wave: February–May 2021

During the second wave, Yemenis largely stopped following COVID-19-prevention practices in the north and the south (KII 16/06/2021). In both areas of control, COVID-19 was not considered as much of a threat as other challenges people faced, such as economic and livelihood challenges and other diseases – including 20,000 suspected cholera cases (EOC accessed 04/01/2021). Neither the DFA nor the IRG reinstated the restrictions and measures they put in place for the first wave.

In April 2021, the vaccination campaign began in southern governorates, but people were slow to take up the opportunity. By the end of that month, WHO had allocated 10,000 doses of the AstraZeneca vaccine to the DFA areas, but Houthi authorities refused to cooperate and demanded to administer the vaccines themselves without WHO supervision (HRW 01/06/2021; KII 11/06/2021). As a result, the vaccines were not delivered.

In IRG areas, the main difference between the first and second wave was the absence of awareness campaigns and civil society activity during the second one. In DFA areas, the key difference was the Houthi statement that COVID-19 had been overcome and was no longer a concern. Muhammad Ali al-Houthi, member of the Supreme Political Council, expressed this position explicitly: “The Yemeni people have overcome Corona, thanks to God Almighty and His grace, and there is no harm for us from this virus, and God willing, there will be nothing to worry about the health of our country and our people” (Sputnik Arabic 02/03/2021). Consistent with this narrative, they justified that there was no need for vaccinations or public health measures (ACAPS 04/05/2020). This stance influenced the rest of the country (HRW 01/06/2021). With zero reported cases in DFA areas, people in IRG territories assumed that people in the north were unaffected by the virus despite limited precautions, leading them to also believe there was no reason to observe preventative measures (KII 15/06/2021).

The third wave: August–October 2021

During the third wave, the number of new cases reached levels similar to the peak of the first. This number started to decline by mid-October. As expected, reported cases were only from IRG-controlled areas, and the DFA narrative remained the same as during the second wave. There are currently no COVID-19 restrictions enforced in the northern or southern areas. Anecdotal reports based on observations indicate that people are less wary of catching the virus compared to earlier waves.

Response capacity and timelines

KEY VACCINE DATES IN IRG AREAS

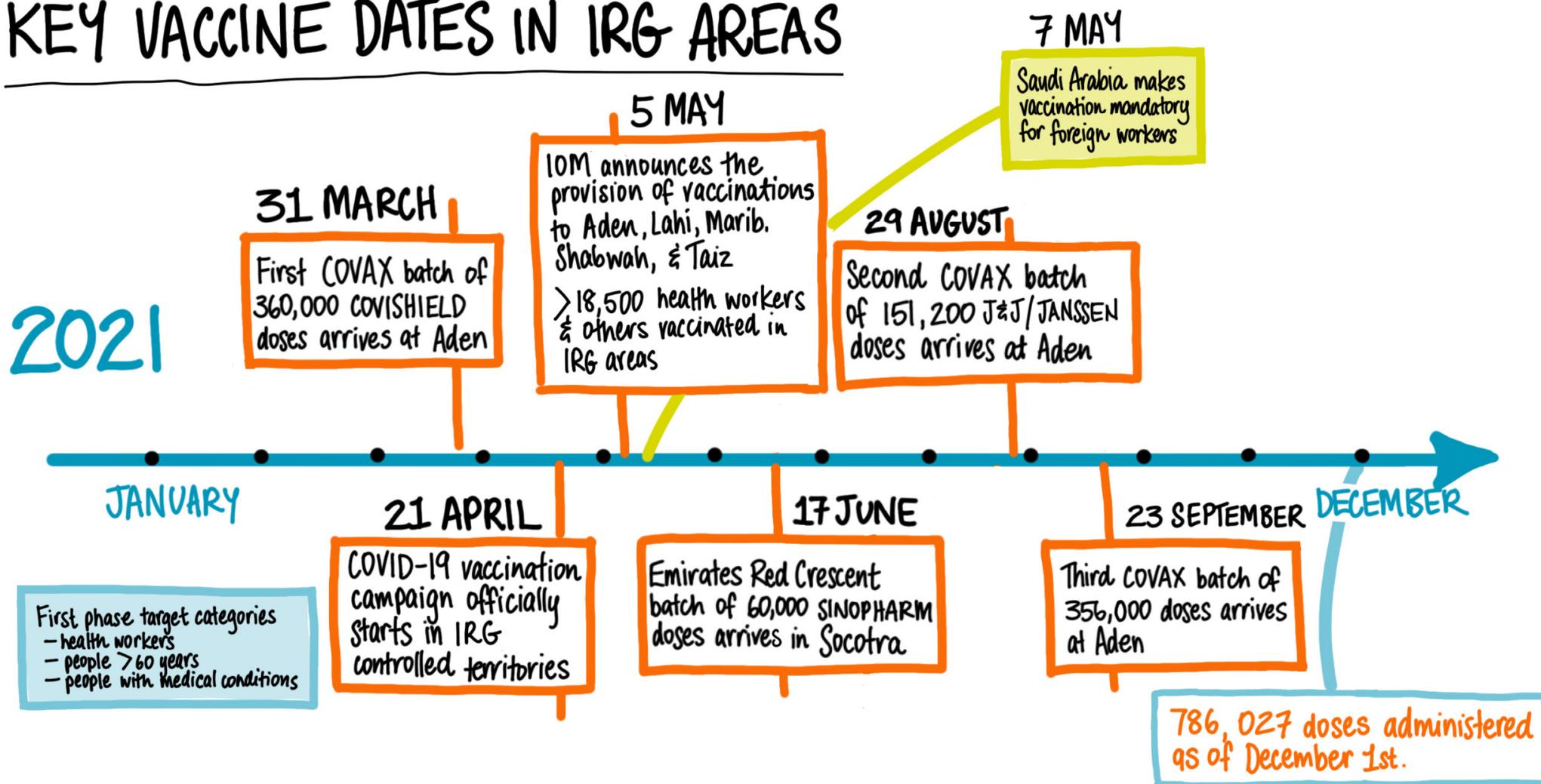


Illustration based on IOM 12/05/2021; Xinhua 17/06/2021; Reuters 29/08/2021; Arab News 07/05/2021.

KEY VACCINE DATES IN DFA AREAS

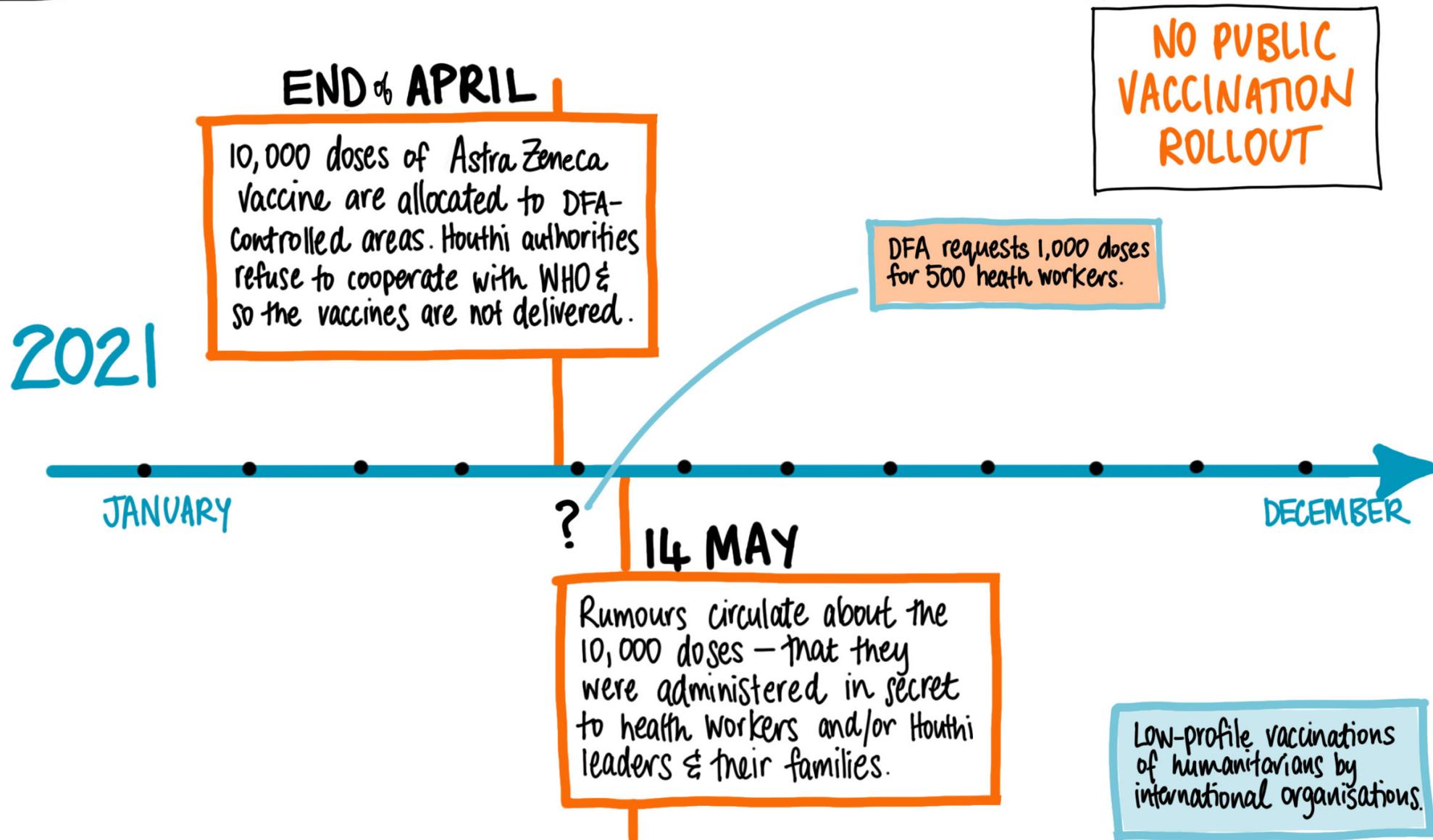


Illustration based on HRW 01/06/2021; Al Arabiya 18/07/2021; KII 11/06/2021; KII 15/06/2021; KII 15/07/2021.

VACCINES AND ISLAMIST GROUPS

While many Islamist groups share a transnational agenda and some common narratives, **there is no consistent Islamic stance on vaccinations.** Militant Islamic groups have different beliefs, ideologies, and especially political agendas. Over time, different Islamic groups have reacted differently to vaccine campaigns, with the common thread being their willingness to use vaccination campaigns to further their political agenda.

Circumstances and political needs reinforced by negative narratives surrounding the origins of vaccines perpetuated by group leaders often fuel the refusal of immunisation campaigns. Those countries where polio remains a threat are all significantly influenced by militant Islamic groups with strong anti-western sentiments. Afghanistan, Nigeria, Pakistan, and Somalia account for 95% of the world's polio cases (TFO 07/03/2017). The associated Islamic groups claim vaccination campaigns are a western imposition, making it a refusal justified by politics and not religion.

There have been times when mistrust was fuelled directly by western actions, such as the fake immunisation campaigns carried out by the US Central Intelligence Agency in Pakistan to flush out Osama Bin Laden (Nature 23/03/2021). Sometimes, any influences outside the Islamic world and from the West are portrayed as opposed to Islamic ideals. Islamist groups take this opportunity to use ideological arguments to support their political interests and amplify anti-western sentiment and the connection to interventions such as vaccines. This situation has happened with the polio vaccine campaigns in Nigeria and Pakistan and is happening in northern Yemen with the COVID-19 vaccine.

Not all armed Islamic groups oppose the COVID-19 vaccine, just as not all of them opposed polio vaccines. In Afghanistan, the Taliban actually embraced the COVID-19 vaccine as an opportunity to weaken the central government and gain popular goodwill by providing this important public health service to the population (MEI 13/04/2021).

Narratives around immunisation campaigns are connected with political interests and not based on Islamic ideology even when the latter is implied. Leaders of militant Islamic groups insinuate or explicitly connect initiatives originating in the West with a general anti-western sentiment and convince people that any action from their enemies must be harmful and cannot be trusted. This strategy helps galvanise the population behind the leaders in the face of a perceived threat. It can also defer any blame for the mishandling or inability to address disease outbreaks away from the leaders.

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