

Assessment of the citizens' perspectives on the COVID-19 vaccination process which are ranked last in the vaccination groups: Qualitative reports from Turkey

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ABSTRACT

Objectives: In this study, we aimed to evaluate the perspectives of the citizens ranking last in COVID-19 vaccination groups towards the vaccination process.

Materials and Methods: In-depth interviews were made with the participants using video conferencing method. Twenty-eight video conferencing interviews were conducted with citizens who ranked last in the vaccination groups. With the permission of the participants, audio recording was obtained in all interviews, transcribed verbatim and checked. Thematic approach was used to analyze the data. Data were collected until saturated.

Results: Findings were summarized into three main categories. The first was "Satisfaction." Participants expressed their satisfaction about process management, home vaccinations and continuous information. The second theme was "Dissatisfaction." Some participants expressed their dissatisfaction with the prioritization of elderly people in vaccination and late vaccination of actively working individuals. The third theme was "Reservations." Participants stated that they have reservations regarding possible complacency in the society after vaccination and delay in vaccination of non-prioritized groups. In general, participants stated that they were satisfied with the supply of vaccines and applications. However, active working individuals think that they should have priority over the elderly in vaccination.

Conclusion: To ensure full compliance with the vaccine administration, it is necessary to enlighten all individuals, especially those ranking last in the vaccination groups, about the prioritization process and which variables are given importance.

Key words: COVID-19, Priority, Qualitative, Vaccination group, Vaccination process

INTRODUCTION

The COVID-19 pandemic process caused a simultaneous need of vaccines all over the world. This made it difficult or even impossible for countries to supply high-dose vaccines at once.¹ Closely following vaccine trials and acting quickly in terms of supply allowed the authorities in Turkey to meet early vaccination needs and it is thought that sufficient doses of vaccine can be supplied without problems in the long term.^{2,3}

Determining the priority groups and implementing the vaccination protocol in an orderly fashion are just as important as the fair distribution of vaccines throughout the country.⁴ In Turkey, vaccination plans were made before vaccines were provided, and priority groups were decided, according to which vaccination was initiated. Today, vaccination process continues within the framework of that plan.⁵

Priority groups were decided by evaluation of the risks of exposure, severe disease and transmission, and the negative impact of the disease on social life.⁵

In this study, we aimed to qualitatively evaluate the opinions of Turkish citizens who ranked last in the priority list on the vaccination process. We believe that the results will shed light on mass vaccination planning during the current and future pandemics.

MATERIALS AND METHODS

Research design

The basic approach of phenomenological research is to identify common aspects of experiences in a population. A qualitative research was conducted using phenomenological approach to evaluate the thoughts and observations of individuals ranking last in the vaccination priority lists about the vaccination process. In-depth interviews were made with the participants using video conferencing method.

Participants

Participants were recruited through purposive and snowball sampling. Individuals in B group who were to be vaccinated at the third stage of the process, as determined by the Ministry of Health of the Turkish Republic, were included in the study (Table 1). Sample size was decided according to data saturation. The interview process was terminated when new themes stopped emerging during the interviews with the participants. Data saturation was reached after 24 interviews, and four more participants were interviewed to verify the saturation. Participants were selected from different groups in terms of age, gender, marital status, profession and employment status to ensure data diversity.

Procedures

Semi-structured, in-depth video conference calls were held between 03 March and 06 March 2021, when participants were available for interview. All interviews were recorded with the permission of the participants. Before the interview, each participant's age, marital status,

whether they had children and profession were questioned. The three questions asked in the interview were as follows:

- What do you think about the vaccination process in our country?
- As one of the last groups to be vaccinated, what do you think about vaccination groups in our country?
- How do you evaluate the process from procurement of vaccines to administration?

In addition, to increase the depth of the discussion, the participants were posed the following questions: "Please give more information about this topic," "Can you please be more explanatory?" and "Can you give an example?"

Data collection was performed simultaneously with data analysis. Audio recordings were transcribed verbatim by the researchers within 24 hours of the interviews. During data analysis, all researchers identified the underlined discourse. The results were checked and approved by all researchers.

Data analysis

The texts were independently reviewed by the researchers many times to determine the important sentences and emphasized points in the interviews. Meaningful statements were summarized and themes were created. The contradictory opinions about the contents of the themes were discussed and resolved by the researchers.

Ethics approval

Permission was obtained for this study from both the local ethics committee (IRB No: 71522473-050.01.04-14808, Date: 02.03.2021) and the Turkish Ministry of Health.

RESULTS

Twenty-eight individuals were enrolled in the study. The mean age of all participants was 34.92 ± 8.39 years, 57.1% were males. Nine participants were single, four were married without children and fifteen were married with children. Characteristics of the participants are displayed in Table 2.

Three theme categories emerged from analysis of the interviews. These themes, subthemes and citations are displayed in Table 3.

Satisfaction with the vaccination process stands out in the interviews with individuals. It is observed that the devoted efforts of decision makers and healthcare professionals are particularly effective in this regard, along with transparency, and frequent information provided by the authorities about the process. Home vaccination for those in poor health or those who do not have access to a healthcare facility is another topic mentioned under “satisfaction.” All but one person agreed that healthcare workers should be given priority for vaccination and were satisfied with its implementation. One person thought that a vaccine, with non-fully proven reliability and urgent approval use, would put healthcare workers at risk at a time when they were most needed.

Although the participants were generally satisfied with the vaccination process, there were some who had questions marks or areas of dissatisfaction. The first is the fact that elderly individuals who cannot or do not leave their houses rank first in the vaccination schedule. Seven participants did not actively work. Twenty of the twenty-one participants, who were actively working, argued that the risk of contracting the disease was much lower among the elderly compared to actively working young individuals, and they thought that they should be vaccinated before older age groups. Particularly, the participants living with their elderly parents stated that the fact that they could carry the disease, but they were not vaccinated, was a great contrast.

The participants had some reservations. The first one was that their vaccination, i.e., the vaccination of those ranking last in the priority list, could be delayed too long. In addition, the participants, who thought that the vaccinated individuals could be more complacent in following the rules, shared the reservation that if the vaccination process is delayed, their risk of getting the disease would increase.

DISCUSSION

This study clarifies the perspectives and observations of individuals ranking last in the COVID-19 vaccination lists in Turkey about the vaccination process. We hope that it will contribute to the policies to be formed during the current vaccination period and in case of any future pandemics.

Turkey first received a total of three million doses of vaccine (CoronaVac) on 30-31 December and following necessary checks, Turkish Minister of Health, Dr. Fahrettin Koca, was the first to get vaccinated. Then, the vaccination of the first groups began according to the pre-determined priority order.⁶ As of March 13, 2021, a total of 10 870 715 doses of vaccine have been administered, and the first step of vaccination process is complete.⁷

Considering the limited availability of COVID-19 vaccine at the beginning of vaccination processes, most countries in the world opted to prioritize vaccination for healthcare workers and residents in a care facility for the elderly.⁸⁻¹⁰ In Turkey, when vaccination groups were established, priority was given to health workers, then residents and staff of the care homes, and disabled individuals. Interviews with the participants reveal that the citizens agree on the prioritized vaccination of healthcare workers. The participants responded positively to prioritizing the vaccination of healthcare workers, thereby preventing the interruption of this fight, because healthcare workers are, without doubt, at the highest risk for exposure, and the main actors in the fight against the disease. However, the groups following healthcare professionals are not those with a high risk of transmission, but those with a high risk of suffering from severe illness.⁵ This prioritization raised questions among the participants. Most actively working participants stated that the elderly is less likely to encounter the virus than them, and actively working individuals who have to be in contact with many people in the work environment should be given priority instead of the elderly. Persad et al. also expressed their reservations about the prioritized vaccination of the elderly. They stated that disadvantaged groups should be vaccinated first, but premature death may also be related to disadvantage, which may be increased by giving priority to all individuals over 65 years of age.¹¹

Most studies emphasize the importance of prioritized vaccination of individuals at risk of severe disease and the need to vaccinate healthcare workers before these groups. Instead of planning according to the working conditions of the individuals, simple programs which allow easy distribution of the vaccines will contribute to the process.^{4,12-14} Thus, it is seen that scientific data and international recommendations were followed during the planning of the vaccination process in Turkey. However, in planning mass vaccination, which concerns the whole society and where compliance is needed, it is obvious that citizens should be better informed about the decisions and the cause-and-effect relations should be conveyed in detail.

Participants had some fears and concerns about the vaccination process. Those who think that vaccinated individuals may become complacent in following the rules also think that their vaccination may be delayed, stating that their risk of contracting the disease increases day by day.

A significant degree of individual protection is provided by vaccination. However, the protection of vaccines on larger populations is unknown.¹⁵ With the vaccination of risky groups, flexibility can be provided in the measures taken throughout the country, but necessary warnings should be made about not reducing personal precautions. Vaccination should be prevented from inducing complacency. In this respect, efforts should be made to raise awareness of the rules that should be followed after vaccination. In addition, modeling for the future effects of vaccination in terms of public health will allow for the rapid implementation of decisions that may be required in case of complacency.

Despite certain questions in the minds of participants regarding the vaccination process in Turkey, they stated they were generally satisfied with the overall operation of the entire process. They think that we are in an advantageous position, especially when compared with the other countries. The success of vaccination in Turkey is mentioned by the international press, as well.^{2,3} The disclosed data indicate that Turkey is managing the vaccination process very well. Compared with the countries which began vaccination priorly, Turkey is moving faster (Figure). Participants also expressed their satisfaction regarding the information provided to the public about the process and home vaccination of individuals who have difficulty accessing healthcare facilities. Especially in terms of giving information, the transparency with which the Turkish Minister of Health has handled the process since the beginning of the pandemic is one of the main factors in the satisfaction of participants.

Although the individuals ranking last in the vaccination groups are satisfied with the progress of the process, especially those who are actively working desire to be given priority in vaccination. In this respect, to ensure full compliance with the vaccination processes, it would be appropriate to enlighten the individuals in the last vaccination groups regarding the evaluations made in prioritization and which variables are given importance.

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REFERENCES

1. Lurie N, Saville M, Hatchett R, Halton J. Developing Covid-19 Vaccines at Pandemic Speed. *N Engl J Med.* 2020;382: 1969–1973.
2. Turkey's COVID-19 vaccinations may quicken after elderly are inoculated - coordinator. (<https://www.reuters.com/article/health-coronavirus-turkey-vaccine-int-idUSKBN29Q0H3>, accessed 21 January 2021)
3. Turkey starts inoculation of second doses of China's Covid-19 vaccines. (https://www.business-standard.com/article/current-affairs/turkey-starts-inoculation-of-second-doses-of-china-s-covid-19-vaccines-121021200083_1.html, accessed 02 March 2021)
4. Hezam IM, Nayeem MK, Foul A, Alrasheedi AF. COVID-19 Vaccine: A neutrosophic MCDM approach for determining the priority groups. *Results Phys.* 2021;20: 103654.
5. COVID-19 Aşısı Ulusal Uygulama Stratejisi. [in Turkish]. (<https://covid19asi.saglik.gov.tr/TR-77706/covid-19-asisi-ulusal-uygulama-stratejisi.html>, accessed 22 February 2021)
6. İlk Koronavirüs Aşısı Sağlık Bakanı Fahrettin Koca'ya Yapıldı. [in Turkish]. (<https://www.saglik.gov.tr/TR,78148/ilk-koronavirus-asisi-saglik-bakani-fahrettin-kocaya-yapildi.html>, accessed 28 February 2021)
7. COVID-19 Aşısı Bilgilendirme Platformu. [in Turkish]. (<https://covid19asi.saglik.gov.tr/>, accessed 28 February 2021)

8. Dooling K, McClung N, Chamberland M, Marin M, Wallace M, Bell BP, et al. The Advisory Committee on Immunization Practices' Interim Recommendation for Allocating Initial Supplies of COVID-19 Vaccine - United States, 2020. *MMWR Morb Mortal Wkly Rep.* 2020;69: 1857–1859.

9. Overview of the implementation of COVID-19 vaccination strategies and vaccine deployment plans in the EU/EEA. (<https://www.ecdc.europa.eu/sites/default/files/documents/Overview-of-COVID-19-vaccination-strategies-deployment-plans-in-the-EU-EEA.pdf>, accessed 01 March 2021)

10. COVID-19 vaccination first phase priority groups.

(<https://www.gov.uk/government/publications/covid-19-vaccination-care-home-and-healthcare-settings-posters/covid-19-vaccination-first-phase-priority-groups>, accessed 12 March 2021)

11. Persad G, Peek ME, Emanuel EJ. Fairly Prioritizing Groups for Access to COVID-19 Vaccines. *JAMA.* 2020. doi:10.1001/jama.2020.18513

12. COVID-19 vaccine prioritization: Work Group considerations.

(<https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2020-08/COVID-08-Dooling.pdf>, accessed 12 March 2021)

13. JCVI interim statement on phase 2 of the COVID-19 vaccination programme.

(<https://www.gov.uk/government/publications/priority-groups-for-phase-2-of-the-coronavirus-covid-19-vaccination-programme-advice-from-the-jcvi/jcvi-interim-statement-on-phase-2-of-the-covid-19-vaccination-programme>, accessed 12 March 2021)

14. Joint Committee on Vaccination and Immunisation: advice on priority groups for COVID-19 vaccination (<https://www.gov.uk/government/publications/priority-groups-for-coronavirus-covid-19-vaccination-advice-from-the-jcvi-30-december-2020/joint-committee-on-vaccination-and-immunisation-advice-on-priority-groups-for-covid-19-vaccination-30-december-2020>, accessed 12 March 2021)

15. Moore S, Hill EM, Tildesley MJ, Dyson L, Keeling MJ. Vaccination and Non-Pharmaceutical Interventions: When can the UK relax about COVID-19? *medRxiv*. 2021; 2020.12.27.20248896.

FIGURE LEGEND

Figure: Vaccination data of countries with a population close to Turkey

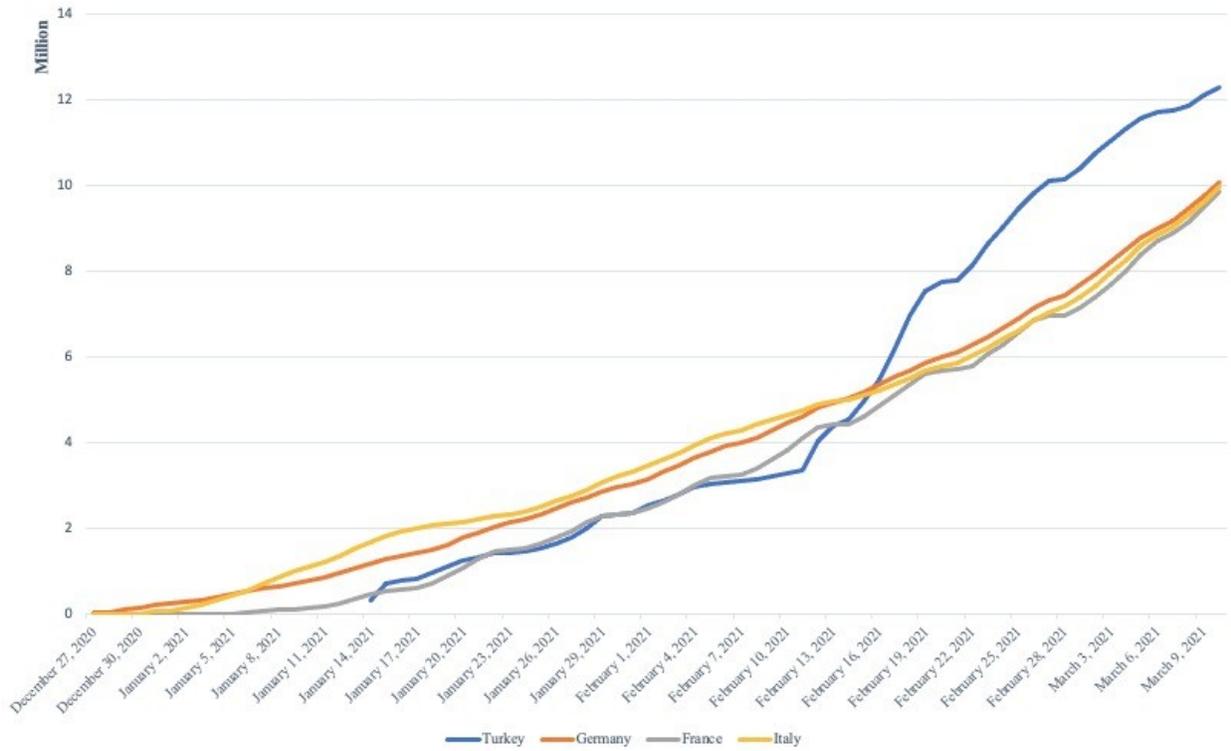


Table 1. Vaccination groups and ranks in Turkey

Stage	Groups	Sequence	Sub-groups
1	A. Health care workers and pharmacy workers	A	
	B. Residents and employees in places such as elderly, disabled and protection care facilities	B	
	C. Individuals aged 65 years and over	C1	Aged 85 years and over
		C2	80-84 years old
		C3	75-79 years old
		C4	70-74 years old
	C5	65.69 years old	
2	A. Priority sectors for maintaining the service	A1	Ministry of National Defense
		A2	Ministry of Interior
		A3	People on critical missions
		A4	Fuzz, private security
		A5	Ministry of Justice
		A6	Prisons
		A7	Education sector employees
		A8	Food industry workers
		A9	Employees in the transportation industry
	B. Individuals between the ages of	B1	60-64 years old

	50 and 64	B2	55-59 years old
		B3	50-54 years old
3	A. People with chronic diseases	A1	40-49 years old
		A2	30-39 years old
		A3	18-29 years old
	B. Other groups	B1	40-49 years old
		B2	30-39 years old
		B3	18-29 years old
4	People who do not get vaccinated on time		

Table 2. Characteristics of participants

	Age, years	Gender	Marital Status	Occupation
P1	26	Male	Single	Civil engineer
P2	27	Male	Single	Unemployed
P3	39	Male	Married with children	Self-employment
P4	29	Female	Married with children	Homemaker
P5	26	Male	Married with children	Computer engineer
P6	43	Female	Married with children	Homemaker
P7	35	Male	Married without children	Textile worker
P8	35	Female	Married without children	Accountant
P9	25	Male	Single	Mechanic
P10	31	Female	Married with children	Homemaker
P11	37	Male	Married with children	Self-employment
P12	45	Male	Married with children	Self-employment
P13	41	Male	Married with children	Self-employment
P14	35	Female	Single	Pay clerk
P15	48	Male	Married with children	Tailor
P16	35	Female	Married without children	Control engineer
P17	22	Female	Single	Student
P18	48	Male	Married with children	Factory worker
P19	40	Female	Single	Manager
P20	43	Male	Married with children	Mechanic

P21	45	Male	Married with children	Plumber
P22	46	Male	Married with children	Homemaker
P23	26	Male	Single	Aircraft engineer
P24	43	Male	Married with children	Computer engineer
P25	33	Female	Married without children	Interior architect
P26	28	Female	Married with children	Salesperson
P27	20	Female	Single	Student
P28	27	Female	Single	Cashier

Table 3. Themes, Sub-themes and Citations

Theme 1: Satisfaction	
Subtheme	Citations
Process management	<p>P11: <i>“I think this process is managed very well in terms of procurement, planning, and the speed of vaccination.”</i></p> <p>P16: <i>“Although we received the vaccines after numerous European countries, considering the vaccination rate, we see how fast and successful this process is running.”</i></p> <p>P17: <i>“Thanks to the experience of our healthcare professionals, a very successful approach is displayed in vaccination both at home and in hospitals.”</i></p> <p>P25: <i>“I do not think that there will be any problems in vaccination procurement, maintenance and application of vaccination programs in our country, as vaccination programs are periodically implemented successfully.”</i></p>
Home vaccinations	<p>P2: <i>“Healthcare personnel performing home vaccinations for the citizens who do not have the opportunity to go to the hospital shows how quickly our health system can be organized in the face of unexpected situations. ”</i></p> <p>P15: <i>“I think it is very important for public health that our high-risk citizens are vaccinated in their homes without the need to use public transportation and not in hospitals, which are deemed risky.”</i></p>

	<p>P19: <i>"Despite the fact that vaccinations performed only in health institutions could progress very quickly, providing this service at the homes of individuals who cannot access hospitals by taking the risk of slowing the process shows how important each citizen is."</i></p>
Continuous briefing	<p>P6: <i>"...I think the fact that the Minister of Health gives first-hand information and shares the current statistics increases the satisfaction with the process."</i></p> <p>P10: <i>"Frankly, I am pleased of the transparency in all matters and of hearing every development from the most authorized person ..."</i></p> <p>P18: <i>"The fact that the Minister of Health held informative meetings almost every day since the beginning of the pandemic increased the confidence and satisfaction in the vaccination process."</i></p> <p>P27: <i>"The transparency of the process from the procurement of vaccines until vaccination increased trust. This approach is very satisfying. "</i></p>

Theme 2: Dissatisfaction

Subtheme	Citations
Prioritizing the elderly	<p>P15: <i>"I do not think it is the right strategy to prioritize the elderly with curfew for vaccination."</i></p> <p>P16: <i>"It is not right for people who are under the risk of severe disease despite low chance of contacting to get vaccinated before individuals who are much higher risk of exposure."</i></p>

	<p>P20: <i>"It would be a better strategy to vaccinate the individuals who can infect them and take care of the elderly, rather than vaccinating the elderly who usually lead an isolated life in their homes."</i></p>
<p>Late vaccination of actively working individuals</p>	<p>P3: <i>"Due to my profession, I am in contact with tens of people every day. I think my chances of getting the virus are high. It is not right to be in the last group to be vaccinated just because I am young."</i></p> <p>P8: <i>"The vaccination groups are determined according to age and comorbidities, but I have a small child and a baby at home. As a working mother, I think I should be prioritized in vaccination."</i></p> <p>P14: <i>"I think the vaccine order should be based on the probability of contracting the virus, not age. I do not find it right to vaccinate elderly people who are very unlikely to contract the disease because they do not leave their homes and leave out an active working person like me."</i></p> <p>P26: <i>"My spouse is a healthcare worker and at high risk for working in units battling with the pandemic. Therefore, while my spouse was vaccinated in the first group, I am included in the last vaccination group, although I am at high risk due to my spouse. I think I should have been the priority, too. "</i></p> <p>P28: <i>"Many people died during the pandemic. However, the deaths of younger individuals among these losses led to more traumatic consequences. Considering this, I think that vaccination of young people</i></p>

	<i>who had a severe corona virus infection should be given priority instead of individuals with very low life expectancy. "</i>
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Theme 3: Reservations

Subtheme	Citations
Complacency in the society following vaccinations	<p>P4: <i>"I am afraid that people who think full immunity has developed after vaccination will put themselves and the people around them at risk."</i></p> <p>P10: <i>"I'm afraid that the transmission and cases will re-increase due to the complacency of people after vaccination."</i></p> <p>P23: <i>"I think the compliance of the vaccinated people in the mask and distance rules will decrease. I think this will put us who are in the last vaccination group at risk."</i></p>
Delay of vaccination of the last groups	<p>P21: <i>"I am concerned that the vaccination of our group will be delayed due to the large population to be vaccinated."</i></p> <p>P25: <i>"Until our group is vaccinated, I fear that new mutations will develop and the vaccine will lose its effectiveness."</i></p> <p>P27: <i>"Until we are vaccinated, I am afraid that I will catch the corona virus and infect my wife and children."</i></p>