

**Note:** This is Online Appendix 1 of Mohamed R, White TM, Lazarus JV, et al. COVID-19 vaccine acceptance and associated factors among people living with HIV in the Middle East and North Africa region. S Afr J HIV Med. 2022;23(1), a1391. <https://doi.org/10.4102/sajhivmed.v23i1.1391>

**Appendix 1, Table 1.** COVID-19 health belief model (n=540)

	Strongly agree		Agree		Neither agree nor disagree		Disagree		Strongly disagree	
<b>Variables of Perceived Risk of Contracting COVID-19</b>										
COVID-19 is a dangerous health threat especially to me as a patient with chronic disease.	181	33.5%	276	51.1%	56	10.4%	14	2.6%	13	2.4%
My chance of getting COVID-19 in the next few months is great	54	10%	177	32.8%	147	27.2%	119	22%	43	8%
If I get COVID -19,I will be very sick and probably need hospitalization	84	15.6%	204	37.8%	123	22.8%	99	18.3%	28	5.2%
<b>Perceived Benefits of COVID-19 Vaccination</b>										
COVID-19 can be prevented by vaccination.	100	18.5%	230	42.6%	128	23.7%	62	11.5%	20	3.7%
Vaccination is a good idea because I will feel less worried about getting COVID-19.	130	23.1%	238	44.1%	118	21.9%	40	7.4%	14	2.6%
<b>Perceived Barriers of COVID-19 Vaccination</b>										

I've heard my HIV medicines protect me from getting COVID-19, so I do not need the vaccine.	33	6.1%	129	23.9%	173	32%	99	18.3%	106	19.6%
I am worried about the possible side-effects of COVID-19 vaccine	84	15.6%	195	36.1%	123	22.8%	80	14.8%	58	10.7%
I am worried about the possible drug-drug interaction between the COVID-19 vaccine and my HIV medications.	70	13%	184	34.1%	123	22.8%	94	17.4%	69	12.8%
I am concerned that COVID-19 vaccine is not recommended for me as I have a weak immune system or CD4+ <200.	48	8.9%	133	24.6%	154	28.5%	115	21.3%	90	16.7%
I am concerned that the COVID-19 vaccine is not effective as I have a weak immune system or CD4+ <200.	51	9.5%	123	22.8%	151	28%	123	22.8%	92	17.1%
I have concern about the effectiveness of the COVID-19 vaccine	62	11.5%	162	30%	140	25.9%	103	19.1%	73	13.5%
I have concerns about the cost of getting the COVID-19 vaccine.	56	10.4%	120	22.2%	165	30.6%	97	18%	102	18.9%
<b>Cues to action</b>										

The chances of me getting vaccinated against COVID-19 will increase if my doctor recommends me	224	51.4%	180	41.3%	19	4.4%	9	2.1%	4	0.9%
The chances of me getting vaccinated against COVID-19 will increase if I was given adequate information about it	232	53.2%	161	36.9%	23	5.3%	14	3.2%	6	1.4%

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**Appendix 2, File 1. Full Questionnaire**

COVID-19 vaccine acceptance and associated factors among people living with HIV in the Middle East and North Africa region

**General Information**

Demographics		
1	How old are you?	<input type="checkbox"/> 18-29 <input type="checkbox"/> 30-39 <input type="checkbox"/> 40-49 <input type="checkbox"/> 50-59 <input type="checkbox"/> 60-69 <input type="checkbox"/> 70-79 <input type="checkbox"/> >80
2	Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Don't wish to disclose

3	Marital status	<input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Widow/Widower
4	Highest education level	<input type="checkbox"/> Primary school and below <input type="checkbox"/> Preparatory education <input type="checkbox"/> Secondary education <input type="checkbox"/> Technical education <input type="checkbox"/> University and above
5	Employment status	<input type="checkbox"/> Unemployed <input type="checkbox"/> Employed/Self-employed <input type="checkbox"/> Student <input type="checkbox"/> Housewife <input type="checkbox"/> Retired <input type="checkbox"/> Other
6	Which country do you live in?	<input type="checkbox"/> Egypt <input type="checkbox"/> Tunisia <input type="checkbox"/> Saudi Arabia
7	Residence area	<input type="checkbox"/> Rural <input type="checkbox"/> Urban
General health related questions		

8	Are you currently receiving your HIV medications?	<input type="checkbox"/> Yes <input type="checkbox"/> No
9	The last time you checked your CD4+ count was:	<input type="checkbox"/> 6 months ago <input type="checkbox"/> A year ago <input type="checkbox"/> More than one year ago
10	What is your recent CD4+ count?	<input type="checkbox"/> 500 cell/mm <sup>3</sup> <input type="checkbox"/> 250-500 cell/mm <sup>3</sup> <input type="checkbox"/> < 250 cell/mm <sup>3</sup> <input type="checkbox"/> I do not know
11	The last time you checked your viral load was:	<input type="checkbox"/> 6 months ago <input type="checkbox"/> A year ago <input type="checkbox"/> More than one year ago
12	Was your recent viral load undetectable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I do not know
13A	Do you have any other chronic medical conditions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
13B	If yes, Specify.	<input type="checkbox"/> Diabetes <input type="checkbox"/> Hypertension <input type="checkbox"/> Cardiac disease <input type="checkbox"/> Chest disease

		<input type="checkbox"/> Renal disease <input type="checkbox"/> Liver disease <input type="checkbox"/> Cancer <input type="checkbox"/> Other
14	How do you rate your overall health?	<input type="checkbox"/> Very good <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Very poor
15	Have you been vaccinated against influenza during the past 12 months?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Exposure to COVID-19</b>		
16A	Have you been tested for COVID-19 ?	<input type="checkbox"/> Yes <input type="checkbox"/> No
16B	What was the result of the test?	<input type="checkbox"/> Positive <input type="checkbox"/> Negative
16C	In case you tested positive for COVID-19, were you hospitalized?	<input type="checkbox"/> Yes <input type="checkbox"/> No

### Acceptability of COVID-19 vaccine

17A	Have you got COVID-19 vaccine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
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- If Yes → Skip to question **19**
- If No → go to question **17B**

17B	When a COVID-19 vaccine becomes available to you, will you take it?	<input type="checkbox"/> Definitely no <input type="checkbox"/> Probably no <input type="checkbox"/> Unsure <input type="checkbox"/> Possibly yes <input type="checkbox"/> Definitely yes
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18	Would you pay a fee to be vaccinated, if needed ?	<input type="checkbox"/> Definitely no <input type="checkbox"/> Probably no <input type="checkbox"/> Unsure
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		<input type="checkbox"/> Possibly yes <input type="checkbox"/> Definitely yes
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**Health Belief Model**

<b>Perceived risk of contracting COVID-19</b>		
<b>(Perceived susceptibility and severity)</b>		
19	COVID-19 is a dangerous health threat especially to me as a patient with chronic disease.	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree
20	My chance of getting COVID-19 in the next few months is great	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree
21	If I get COVID -19,I will be very sick and probably need hospitalisation	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree

		<input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree
<b>Perceived benefits of COVID-19 vaccination</b>		
22	COVID-19 can be prevented by vaccination.	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree
23	Vaccination is a good idea because I will feel less worried about getting COVID-19.	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree
<b>Perceived barriers of COVID-19 vaccination</b>		
24	I've heard my HIV medicines protect me from getting COVID-19, so I do not need the vaccine.	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree
25	I am worried about the possible side-effects of COVID-19 vaccine.	<input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree

		<input type="checkbox"/> Strongly Agree
26	I am worried about the possible drug-drug interaction between the COVID-19 vaccine and my HIV medications.	<input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree
27	I am concerned that COVID-19 vaccine is not recommended for me as I have a weak immune system or CD4+ <200.	<input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree
28	I am concerned that the COVID-19 vaccine is not effective as I have a weak immune system or CD4+ <200.	<input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree
29	I have concern about the effectiveness of the COVID-19 vaccine.	<input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree
30	I have concerns about the cost of getting the COVID-19 vaccine.	<input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree

		<input type="checkbox"/> Strongly Agree
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If Already vaccinated → End survey.

<b>Cues to action</b>		
31	The chances of me getting vaccinated against COVID-19 will increase if my doctor recommends me	<input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree
32	The chances of me getting vaccinated against COVID-19 will increase if I was given adequate information about it	<input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neither disagree or agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree