

# Eastern Mediterranean Regional COVID-19 Vaccine Effectiveness Study – Status Update

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**WHO EMRO COVID-19 Vaccine Effectiveness Study;  
Status Update and Important Considerations  
17 November 2022**

# Overview

The two main types of activities in the EM Regional COVID-19 VE Study include:

- 1 Enhancing processes and structures in the Region
- 2 Building national technical capacity among EM Countries

# Enhancing processes and structures in the Region

1. Establishment of a multidisciplinary Regional COVID-19 VE **technical team**
2. Development of the COVID-19 VE **Dashboard** for the EM Region
3. **Standardization** of methods and data analysis
4. Issuance of the Regional **Ethical Clearance**
5. Development of the Regional **Data Entry Platform** (REDCap)

# Responsibilities of the EM Regional COVID-19 Vaccine Effectiveness Technical Team

- ✓ Review of **technical and financial proposals**: Proposals from each country underwent several rounds of revision before being selected as part of the the EM Regional COVID-19 VE Study
- ✓ Evaluation of **regulatory / technical documents** from each study: for e.g., for ethical clearance: PI checklist, study protocols, questionnaires, etc.
- ✓ Regular (monthly) **consultation meetings** with each country's research team
- ✓ **Data management**: collection, validation, aggregation, and statistical analysis of study results

# COVID-19 Vaccine Effectiveness Dashboard: 12 studies evaluated from Sep 2021 – Nov 2022 (Requesting EMRO's technical and financial support)

The Dashboard is updated weekly including the following information:

Institution & PI information		Ethical clearance	COVID-19 VE Proposal Shared		Study design / Methods	In line with WHO VE Protocol (HCWs or SARI)	WHO support requested (\$ or technical)	COVID-19 VE proposal development / study implementation	Revision rounds & dates	Consultation/ technical meetings			
EM country	Institution	National ethical committee	PI (direct contact point w/ country and email)	COVID-19 VE Proposal shared	Study design	In line with w/ WHO protocols	WHO/EMRO support requested / offered	COVID-19 VE proposal / study phase and decision	Revision round	Last revision date	First F2F Consultation w/ VE technical team	Second F2F Consultation w/ VE technical team	Third F2F Consultation w/ VE technical team
Egypt	Academic Med Center Al Azhar University	Yes	Dr. Zeinab NABIL SAID zeinabnabil@azhar.edu.eg	Yes	Cohort study among HCWs (mix retrospective + prospective)	Yes	Both technical & financial	Proposal revised and eligible for regional CVE study	Third-round of revisions by VE technical team	15-Nov-21	4-Oct-21	9-Dec-21	17-Apr-23
Iran	MoH & Shahrood University of Medical Sciences (SUMS)	NA	---	Yes	Cohort (sero survey)	No	Both technical & financial	Proposal revised and not eligible for regional CVE study	First-round of revisions by VE technical team	6-Sep-21	NA	NA	NA
Iran	Kerman University of Medical Sciences (KMU)	NA	Dr. Ali MIRZAZADEH ali.mirzazadeh@ucsf.edu	Yes	Cohort or nested case-control study	No	Both technical & financial	Proposal revised and not eligible for regional CVE study	Second-round of revisions by VE technical team	16-Nov-21	NA	NA	NA
Iran	Kermanshah University of Medical Sciences (KUMS)	Yes	Dr. Farid NAJAFI farid_n32@yahoo.com	Yes	Case-control (TND SARI)	Yes	Both technical & financial	Proposal revised and eligible for regional CVE study	Third-round of revisions by VE technical team	23-Apr-22	16-May-22	NA	TBD
Iran	Pasteur Institute of Iran	Yes	Dr. Ehsan Mostafavi	Yes	Seroepidemiology of anti-spike antibodies and retro evaluation of Covid-19 VE in Iranian HCWs	Partial	Both technical & financial	Proposal revised and not eligible for regional CVE study	Third round of revision by VE technical team	18-Aug-22	28-Jun-22	NA	NA
Jordan	MoH	Yes	Dr. Fatima ZERRIOUH THNEIBAT toom832016@gmail.com	Yes	Case-control (TND SARI)	Yes	Both technical & financial	Proposal revised and eligible for regional CVE study	Second-round of revisions by VE technical team	21-Nov-21	13-Oct-21	9-Dec-21	18-Apr-22
Lebanon	MoPH	Yes	Dr. Moubadda ASSI assimo@who.int	Yes	Cohort study among HCWs (retrospective)	Partial	Technical support	Proposal revised and not eligible for regional CVE study	Fourth-round of revisions by VE technical team	2-Nov-21	30-Sep-21	NA	NA
Morocco	MoH	NA	---	No	NA	NA	NA	Initial interest	NA	NA	NA	NA	NA
Oman	MoH	NA	Dr. Warda AL AMRI alamri.warda@gmail.com	No	NA	NA	NA	Initial interest	NA	NA	6-Oct-21	NA	NA
Pakistan	Khyber Pakhtunkhwa Medical University (KMU)	Yes	Dr. Sheraz FAZID (PI) sherazvs@gmail.com	Yes	Cohort study among HCWs (prospective)	Yes	Both technical & financial	Proposal revised and eligible for regional CVE study	Third-round of revisions by VE technical team	14-Nov-21	21-Oct-21	9-Dec-21	NA
Palestine (oPt)	MoH/PNIPH	NA	---	Yes	Cross-section household serosurvey (befor / after study)	No	Both technical & financial	Proposal revised and not eligible for regional CVE study	Other	NA	NA	NA	NA
Tunisia	MoH	Yes	---	No	Cross-section household serosurvey (before/after vaccination) or Case-	NA	NA	Initial interest	NA	NA	11-Oct-21	NA	NA
Initial Interest	Proposal under revision	Eligible for Regional St	Not In line with WHO VE Protocol	Unknown									

# COVID-19 Vaccine Effectiveness Dashboard: 26 studies as of 10 November 2022

(all planned, ongoing or published studies from the EMR identified in [view-hub.org](https://view-hub.org))

The Dashboard which is updated weekly includes the following information:

Country	Title	Author and Publication Year	Start and End Dates	Population	Outcomes	Vaccine Products	SARS-CoV-2 Variants	Results published / link to publication
Egypt	Effectiveness and safety of inactivated SARS-CoV2 vaccine (BBiBP-CorV) among healthcare workers: A seven-month follow-up study at 8 health hospitals	Ashmawy, 2022	1 May 2021 to 30 September 2021	Healthcare workers	Symptomatic disease, Any infection, Hospitalization	Beijing CNBG (BBiBP-CorV)	Delta (B.1.617.2)	Under peer review 11 March 2022 <a href="https://www.researchsquare.com/article/rs-1431715/v1">https://www.researchsquare.com/article/rs-1431715/v1</a>
Egypt	N/A (Planned or ongoing study)	N/A	Expected start date: March 2021, Results expected: November 2021	Healthcare workers	Any infection	AstraZeneca (Vaxzevria), Janssen (Ad26.COV.2.S), Beijing CNBG (BBiBP-CorV), Gamalaya (Gam-Covid-Vac), Sinovac (CoronaVac)	N/A	N/A
Iran	N/A (Planned or ongoing study)	N/A	Expected start date: TBD Results expected: Unknown	Adults	Hospitalization, Death	AstraZeneca (Vaxzevria), Beijing CNBG (BBiBP-CorV), Gamalaya (Gam-Covid-Vac), Bharat (Covaxin)	N/A	N/A
Jordan	N/A (Planned or ongoing study)	N/A	Expected start date: September 2021 Results expected: 2022	Adults	Severe disease, Hospitalization	Pfizer BioNTech (Comirnaty), AstraZeneca (Vaxzevria), Beijing CNBG (BBiBP-CorV), Gamalaya (Gam-Covid-Vac)	N/A	N/A
Kuwait	Effectiveness of BNT162b2 and ChAdOx1 Vaccines against Symptomatic COVID-19 among Healthcare Workers in Kuwait: A Retrospective Cohort Study	Alali, 2021	24 December 2020 to 15 June 2021	Healthcare workers	Symptomatic disease	AstraZeneca (Vaxzevria), Pfizer BioNTech (Comirnaty)	Alpha (B.1.1.7)	Published results 7 December 2021 <a href="https://www.mdpi.com/2227-9032/9/12/1692/full">https://www.mdpi.com/2227-9032/9/12/1692/full</a>
Kuwait	Effectiveness of BNT162b2 and ChAdOx1 vaccines against symptomatic COVID-19 among Healthcare Workers in Kuwait: A Retrospective cohort study	Alali, 2021	24 December 2020 to 15 June 2021	Healthcare workers	Any infection	AstraZeneca (Vaxzevria), Pfizer BioNTech (Comirnaty)	Alpha (B.1.1.7)	Published results 29 July 2021 <a href="https://www.medrxiv.org/content/10.1101/2021.07.25.21261083v1.full.pdf">https://www.medrxiv.org/content/10.1101/2021.07.25.21261083v1.full.pdf</a>
Lebanon	N/A (Planned or ongoing study)	N/A	Expected start date: September 2021 Results expected: 2022	Healthcare workers	Any infection	Pfizer BioNTech (Comirnaty), AstraZeneca (Vaxzevria), Beijing CNBG (BBiBP-CorV), Gamalaya (Gam-Covid-Vac)	N/A	N/A
Morocco	Long term effectiveness of inactivated vaccine BBiBP-CorV (Vero Cells) against COVID-19 associated severe and critical hospitalization in Morocco	Belayachi, 2022	2 February 2021 to 1 October 2021	Adults	Hospitalization	Beijing CNBG (BBiBP-CorV)	Mixed VOC and Non-VOC	Published results 27 Jan 2022 <a href="https://www.medrxiv.org/content/10.1101/2022.01.25.22269829v1.full.pdf">https://www.medrxiv.org/content/10.1101/2022.01.25.22269829v1.full.pdf</a>
Morocco	Real-world study of the effectiveness of BBiBP-CorV (Sinopham) COVID-19 vaccine in the Kingdom of Morocco	Zhang, 2022	1 February 2021 to 30 June 2021	Adults	Hospitalization	Beijing CNBG (BBiBP-CorV)	Alpha (B.1.1.7)	Published results 5/27/2022 <a href="https://www.medrxiv.org/content/10.1101/2022.04.23.22274112v1.full.pdf">https://www.medrxiv.org/content/10.1101/2022.04.23.22274112v1.full.pdf</a>
Pakistan	N/A (Planned or ongoing study)	N/A	Expected start date: TBD, Results expected: Unknown	Healthcare workers	Any infection	Pfizer BioNTech (Comirnaty), Moderna (mRNA-1273), AstraZeneca (Vaxzevria), Beijing CNBG (BBiBP-CorV), Gamalaya (Gam-Covid-Vac), Covovax (Covovax), Sinovac (CoronaVac)	—	N/A
Qatar	Effectiveness of the BNT162b2 Covid-19 Vaccine against the B.1.1.7 and B.1.351 Variants	Abu-Raddad, 2021	1 February 2021 to 31 March 2021	Adults	Any infection, Severe	Pfizer BioNTech (Comirnaty)	Alpha (B.1.1.7), Beta (B.1.351)	Published results 8 July 2021 <a href="https://www.mdpi.com/doi/10.1056/NEJMv2104974">https://www.mdpi.com/doi/10.1056/NEJMv2104974</a>
Qatar	mRNA-1273 COVID-19 vaccine effectiveness against the B.1.1.7 and B.1.351 variants and severe COVID-19 disease in Qatar	Chemaitelly, 2021	1 February 2021 to 10 May 2021	Adults	Any infection, Severe, Symptomatic disease, Asymptomatic infection	Moderna (mRNA-1273)	Alpha (B.1.1.7), Beta (B.1.351)	Published results 9 July 2021 <a href="https://doi.org/10.1038/s41591-021-01446-y">https://doi.org/10.1038/s41591-021-01446-y</a>
Qatar	Associations of Vaccination and of Prior Infection With Positive PCR Test Results for SARS-CoV-2 in Airline Passengers Arriving in Qatar	Bertolini, 2021	18 February 2021 to 26 April 2021	Adults	Any infection	Pfizer BioNTech (Comirnaty) & Moderna (mRNA-1273)	Beta (B.1.351) & Alpha (B.1.1.7) & non-VOC	Published results 9 June 2021 <a href="https://jamaandwork.com/doi/abs/10.1001/jama.2021.7811.2">https://jamaandwork.com/doi/abs/10.1001/jama.2021.7811.2</a>
Qatar	SARS-CoV-2 vaccine effectiveness in preventing confirmed infection in pregnant women	Butt, 2021	20 December 2020 to 30 May 2021	Pregnant women	Any infection	Pfizer BioNTech (Comirnaty) & Moderna (mRNA-1273)	Alpha (B.1.1.7) & non-VOC	Published results 22 June 2021 <a href="https://www.researchsquare.com/article/rs-522782/v1">https://www.researchsquare.com/article/rs-522782/v1</a>
Qatar	SARS-CoV-2 vaccine effectiveness in immunosuppressed kidney transplant recipients	Chemaitelly, 2021	1 February 2021 to 21 July 2021	Other	Any infection, Severe	Pfizer BioNTech (Comirnaty) & Moderna (mRNA-1273)	—	Published results 9 August 2021 <a href="https://www.medrxiv.org/content/10.1101/2021.08.07.21261781v1.full.pdf">https://www.medrxiv.org/content/10.1101/2021.08.07.21261781v1.full.pdf</a>
Qatar	BNT162b2 and mRNA-1273 COVID-19 vaccine effectiveness against the Delta (B.1.617.2) variant in Qatar	Tang, 2021	23 March 2021 to 21 July 2021	12+ years	Any infection, Severe, Symptomatic disease, Asymptomatic infection	Moderna (mRNA-1273), Pfizer BioNTech (Comirnaty)	Delta (B.1.617.2)	Published results 13 August 2021 <a href="https://doi.org/10.1101/2021.08.11.21261885">https://doi.org/10.1101/2021.08.11.21261885</a>
Qatar	Waning of BNT162b2 vaccine protection against SARS-CoV-2 infection in Qatar	Chemaitelly, 2021	1 January 2021 to 15 August 2021	Adults, Older Adults	Any infection, Symptomatic disease, Asymptomatic infection, Severe	Pfizer BioNTech (Comirnaty)	Alpha (B.1.1.7), Beta (B.1.351), Delta (B.1.617.2)	Published results 27 August 2021 <a href="https://doi.org/10.1101/2021.08.25.21262584">https://doi.org/10.1101/2021.08.25.21262584</a>
Qatar	Waning of BNT162b2 vaccine protection against SARS-CoV-2 infection in Qatar	Chemaitelly, 2021	1 January 2021 to 5 September 2021	Older Adults, 12+ years	Any infection, Symptomatic disease, Asymptomatic infection, Severe	Pfizer BioNTech (Comirnaty)	Alpha (B.1.1.7), Beta (B.1.351), Delta (B.1.617.2)	Published results 6 October 2021 <a href="https://www.medrxiv.org/doi/10.1056/NEJMv2114814">https://www.medrxiv.org/doi/10.1056/NEJMv2114814</a>
Qatar	Waning of mRNA-1273 vaccine effectiveness against SARS-CoV-2 infection in Qatar	Abu-Raddad, 2021	1 January 2021 to 5 December 2021	Adults	Any infection, Symptomatic disease, Asymptomatic infection, Hospitalization	Moderna (Spikevax)	Mixed VOC	Published results 16 December 2021 <a href="https://www.medrxiv.org/content/10.1101/2021.12.16.21267920v1.full.pdf">https://www.medrxiv.org/content/10.1101/2021.12.16.21267920v1.full.pdf</a>
Qatar	Effectiveness of BNT162b2 and mRNA-1273 COVID-19 boosters against SARS-CoV-2 Omicron (B.1.1.529) infection in Qatar	Abu-Raddad, 2022	5 January 2021 to 9 January 2022	Adults	Any infection, Symptomatic disease	Pfizer BioNTech (Comirnaty) - Booster dose, Moderna (Spikevax) - Booster dose	Omicron (B.1.1.519), Delta (B.1.617.2)	Published results 14 January 2022 <a href="https://www.medrxiv.org/content/10.1101/2022.01.18.22263452v1.full.pdf">https://www.medrxiv.org/content/10.1101/2022.01.18.22263452v1.full.pdf</a>
Qatar	Duration of protection of BNT162b2 and mRNA-1273 COVID-19 vaccines against symptomatic SARS-CoV-2 Omicron infection in Qatar	Chemaitelly, 2022	23 December 2021 to 28 February 2022	Adults	Symptomatic disease, Severe disease	Moderna (Spikevax), Pfizer BioNTech (Comirnaty), Moderna (Spikevax) Booster dose, Pfizer BioNTech (Comirnaty) - Booster dose	Omicron (B.1.1.519), other	Published results 13 March 2022 <a href="https://www.medrxiv.org/content/10.1101/2022.03.12.22274549v1.full.pdf">https://www.medrxiv.org/content/10.1101/2022.03.12.22274549v1.full.pdf</a>
Qatar	Effect of prior infection, vaccination, and hybrid immunity against symptomatic B.1.1.7 and B.1.2 Omicron infections and severe COVID-19 in Qatar	Altamwneh, 2022	23 December 2021 to 21 February 2022	Adults	Any infection, Symptomatic disease, Other Outcome	Moderna (Spikevax), Pfizer BioNTech (Comirnaty), Moderna (Spikevax) Booster dose, Pfizer BioNTech (Comirnaty) - Booster dose	Other, Omicron (B.1.1.519)	Published results 22 March 2022 <a href="https://www.medrxiv.org/content/10.1101/2022.03.22.22274549v1.full.pdf">https://www.medrxiv.org/content/10.1101/2022.03.22.22274549v1.full.pdf</a>
Qatar	Effectiveness of the BNT162b2 vaccine against SARS-CoV-2 infection among children and adolescents in Qatar	Chemaitelly, 2022	1 February 2021 to 12 July 2021	Children less than 18 y/o	Any infection	Pfizer BioNTech (Comirnaty)	Omicron (B.1.1.519), Mixed VOC	Published results 26 July 2022 <a href="https://www.medrxiv.org/content/10.1101/2022.07.26.22280454v1">https://www.medrxiv.org/content/10.1101/2022.07.26.22280454v1</a>
Qatar	N/A (Planned or ongoing study)	N/A	Expected start date: December 2020 Results expected: —	Adults, Older Adults, Children	Any infection, Asymptomatic infection, Symptomatic disease, Severe disease, Hospitalization, Death	Pfizer BioNTech (Comirnaty) - Booster dose, Moderna (Spikevax) - Booster dose	Alpha (B.1.1.7), Beta (B.1.351), Delta (B.1.617.2), Omicron	N/A
Saudi Arabia	The impact of COVID-19 Vaccine on Rate of Hospitalization and Outcome of COVID-19 Infection in a Single Center in the Eastern Province of Saudi Arabia	Alkhalaf, 2021	1 April 2021 to 31 July 2021	Adult COVID-19 cases	ICU admission, mechanical ventilation, death, length of hospital stay	Pfizer BioNTech (Comirnaty) & other brands	—	Published results 11 October 2021 <a href="https://www.researchsquare.com/article/rs-903562/v2">https://www.researchsquare.com/article/rs-903562/v2</a>
United Arab Emirates	An analysis of antibody responses and clinical sequelae of the Sinopham HB02 COVID19 vaccine in dialysis patients in the United Arab Emirates	Hoit, 2021	15 March 2020 to 20 June 2021	Hemodialysis patients	Antibody / humoral responses and clinical sequelae	Sinopham vaccine	—	Published results 27 September 2021 <a href="https://onlinelibrary.wiley.com/doi/10.1111/nep.13980">https://onlinelibrary.wiley.com/doi/10.1111/nep.13980</a>
United Arab Emirates	Sinopham (BBiBP-CorV) vaccine effectiveness on preventing hospital admission and death: results from a retrospective study in the Emirate of Abu Dhabi, United Arab Emirates (UAE)	Al Hosani, 2022	1 September 2020 to 1 May 2021	Adults	Hospitalization, other, Death	Sinopham (Beijing): BBiBP-CorV (Vero Cells) Vaccine Type: Inactivated This vaccine may also be referred to as Covilo	Mixed VOC Beta (B.1.351) & Alpha (B.1.1.7)	Published results 27 October 2020 <a href="https://www.sciencedirect.com/science/article/pii/S0254410322001748?via=ihl">https://www.sciencedirect.com/science/article/pii/S0254410322001748?via=ihl</a>
United Arab Emirates	Effectiveness of BBiBP-CorV vaccine against severe outcomes of COVID-19 in Abu Dhabi, United Arab Emirates (UAE)	Al Kaabi, 2022	1 October 2020 to 31 July 2021	Adults	Hospitalization, Critical care admission, Death	Sinopham (Beijing): BBiBP-CorV (Vero Cells) Vaccine Type: Inactivated This vaccine may also be referred to as Covilo	Non-VOC	Published results 9 June 2022 <a href="https://www.nature.com/articles/d41467-022-30835-1#sec4">https://www.nature.com/articles/d41467-022-30835-1#sec4</a>
Planned or ongoing								
Published / completed								



# Categories of countries based on COVID-19 vaccine effectiveness proposal or study *status* in the EMR (as of November 2022)

## Countries interested in conducting COVID-19 VE study with support from WHO-EMRO

Expressed interest in or submitted proposal to WHO/EMRO: Lebanon, Morocco, Oman, Palestine, and Tunisia

Submitted proposals in line with WHO protocol and currently under reviews by WHO/EMRO's VE technical team:  
NA

Proposal deemed eligible to participate in Regional COVID-19 VE study and in implementation phase: Iran, Jordan, Egypt and Pakistan

## Countries with COVID-19 VE studies independent of WHO-EMRO's support

Planned, ongoing, or completed COVID-19 VE studies in the EMR: Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Morocco, Qatar, Saudi Arabia and the UAE



# Standardization of methods and data analysis plans

- Technical proposals with study designs in line with the **two main WHO protocols** (TND in SARI and cohort study in HCWs) were selected; following which their methods and statistical analysis plans were standardized / harmonized to allow **pooling data across countries** and **reporting Regional VE estimates**
- The study details of the **four countries** which were selected to participate in the EM Regional COVID-19 VE Study are presented in the next slides



# Jordan – Ministry of Health

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**Study design:** Prospective TND in SARI

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**Study sites:** 4 hospitals of King Abdullah, Prince Hamza, Zarka and Karak

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**COVID-19 vaccines:** Pfizer, AstraZeneca, Sinopharm and Bharat

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**Sample size:** 943 cases: 1,886 control (so far, 708 participants enrolled; 130 positive case; 549 negative; 31 pending)

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**Study dates:** data collection: 12 months of data from 4 June 2022 – 2023  
data entry in REDCap started: 5 June 2022

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**Current status:** On track / plan with study implementation; monthly data validation ongoing

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# Iran – Ministry of Health & Shahroud University of Medical Sciences

**Study design:** Retrospective TND in SARI

**Study sites:** 7 provinces of Mashhad, Shahroud, Qom, Kerman, Tabriz, Kermanshah, Kurdistan, and Hamedan

**COVID-19 vaccines:** AstraZeneca, Sinopharm, Sputnik, Bharat and domestic brands (e.g., Barekat, PastroCovac, Fakhravac, and Spikogen)

**Sample size:** 12,688 cases : 12,688 controls (~25,000 total)

**Study dates:** 10 months of data from May 2021 – March 2022  
Start date: 20 May 2022  
End date: 30 September 2022

**Current status:** Standardization and importation of datasets into RECap in progress; so far data from 4 provinces received

# Pakistan – Khyber Medical University (KMU)

**Study design:** Mix retrospective-prospective cohort study in HCWs

**Study sites:** 3 hospitals of Saidu, Mardan and Kohat

**COVID-19 vaccines:** Pfizer, Moderna, AstraZeneca, and Sinopharm

**Sample size:** 1,627 planned (of which 1,414 have been enrolled; 90 additional participants to be recruited)

**Study dates:**

Study enrollment: December 2021
Data entry into REDCap: 16 June 2022
Study end date: 31 January 2023

**Current status:** In process of completing data entry in REDCap, follow-up and data validation ongoing

# Egypt – Al-Azhar University

**Study design:** Prospective cohort study in HCWs

**Study sites:** 5 hospitals of Al-Zahraa, Al-Hussein, Bab Al-Sheria Damiatta and Assiut

**COVID-19 vaccines:** Sinopharm, Sinovac, AstraZeneca, Janssen, Bharat, Pfizer, Moderna

**Sample size:** 1,006 HCWs (enrollment complete)

**Study dates:** 12 months from mid-Aug 2022 – 2023  
Participant enrollment started: 1 July 2022  
Data entry in REDCap started: 31 July 2022

**Current status:** Participant follow-up in progress

# Selected countries to participate in EM Regional COVID-19 VE Study

National COVID-19 VE Studies	Study design and method	Sample size and study sites	Study duration	
<b>Countries and Investigative Institute</b>	<b>Egypt</b> Al-Azhar University	Prospective Cohort Study in Health Care Workers (HCWs)	1,006 participants From 5 hospitals	From 08/2022 – 08/2023 (12 months)
	<b>Iran</b> Kermanshah University of Medical Sciences	Retrospective Test-Negative case-control Design (TND) in Sever Acute Respiratory Infections (SARI)	~25,000 Participants From 7 provinces	From 05/2021 – 03/2022 (10 months)
	<b>Jordan</b> MOH	Prospective Test-Negative case-control Design (TND) in Sever Acute Respiratory Infections (SARI)	1,000 cases: 2,000 controls (3,000 total) From 4 hospitals	From 06/2022 – 06/2023 (12 months)
	<b>Pakistan</b> Khyber Medical University	Mix Retrospective-Prospective Cohort Study in Health Care Workers (HCWs)	~1,500 participants From 3 hospitals	From 11/2021 – 01/2023 (15 months)



# The Regional Data Entry Platform

Listed below are the REDCap projects to which you currently have access. Click the project title to open the project. [Read more](#) To review which users still have access to your projects, visit the [User Access Dashboard](#).

To review and edit ownership of the projects you have access to, visit the [Project Ownership List](#).

Project Title	Records	Fields	Instruments	Type	Status
EM Regional COVID-19 Vaccine Effectiveness Study: Test-Negative Design in SARI	0	153	13 forms	■	✎
EM Regional COVID-19 Vaccine Effectiveness Study: Cohort Study in HCWs	0	267	5 forms	■	✎
COVID-19 VE Study (Cohort Study in HCWs) - Egypt 2022 (WHO-EMRO)	3	240	5 forms	■	✓
COVID-19 VE Study (Cohort Study in HCWs) - Pakistan 2022 (WHO-EMRO)	1'443	279	5 forms	■	✓
COVID-19 VE Study (TND in SARI) - Jordan 2022 (WHO-EMRO)	68	155	12 forms	■	✓
COVID-19 VE Study (TND in SARI) - Iran 2022 (WHO-EMRO)	3'195	157	13 forms	■	✎

REDCap 12.3.2 - © 2022 Vanderbilt University

<https://extranet.who.int/edcrc/>



# Building national technical capacity among EM Countries

General training programs targeting all countries (e.g., generic WHO protocols, updated WHO guidance for conducting COVID-19 VE studies)

Specialized (customized) training programs developed based on the needs of investigators partaking in the EM Regional COVID-19 VE Study

# Capacity-building for the EM Regional COVID-19 VE Study (2021-2022)

Participants	Capacity-building session	Date
<b>For all EM Countries (general training program)</b>	EM Regional COVID-19 VE Study using WHO protocol for Cohort study in HCWs	13 Dec 2021
	EM Regional COVID-19 VE Study using WHO protocol for TND in SARI	15 Dec 2021
<b>For EM Countries partaking in the EM Regional COVID-19 VE Study (specialized training program)</b>	Interactive capacity-building trainings on the use of <u>REDCap</u> for study design and data management using WHO protocol for TND in SARI	7 March 2022
	Interactive capacity-building trainings on the use of <u>REDCap</u> for study design and data management using WHO protocol for Cohort study in HCWs	8 March 2022

# Special thanks to the EMR COVID-19 VE Technical Team!

## WHO-EMRO team members

### ❖ Team leads

- Arash Rashidian, RKM Pillar Lead & Director of SID
- Yvan Hutin, Vaccine Pillar Lead & Director of DCD

### ❖ Core team members:

- Mehrnaz Kheirandish, Kamal Fahmy and Zahra Karimian

### ❖ Other team members

- Abdinaser Abubakar
- Quamrul Hasan
- Mohammed Osama Mere
- Amal Barakat
- Eman Aly
- Hala Abou-El Naja
- Amir Aman
- Noore Alam

## Support team

### ❖ Epiconcept

- Anthony Nardone
- Marta Valenciano
- Valérie Nancey
- Sandra Cohuet
- Jihane Ben-Farhat
- Jenny Howard
- Madelyn Rojas