

# KENYA - Kenya Multisite Integrated Surveillance of SARS-CoV-2 and other Pathogens, KEMIS III

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# Overview

## Identification

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### ID NUMBER

DDI-KEN-APHRC-KEMIS3-2023-v1.0

## Version

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### VERSION DESCRIPTION

### PRODUCTION DATE

2023-12-05

## Overview

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### ABSTRACT

In the dynamic landscape of COVID-19 pandemic and its implications for global health and well-being, the importance of population surveillance remains undeniably crucial. The ongoing pandemic has underscored the critical need for continuous monitoring, analysis, and understanding of the virus's prevalence and impact on communities. As we navigate the post-peak phases and adapt to new variants, robust surveillance remains paramount for effective public health responses, resource allocation, and policy formulation. Population surveillance serves as a sentinel, allowing health authorities to understand patterns of the virus transmission, identify emerging concerns in uptake of public health interventions, and anticipate potential surges in infections. Surveillance data is instrumental not only in devising targeted interventions but also in fostering adaptability to the ever-changing nature of the virus.

In Kenya, the proactive response to the global COVID-19 pandemic has been orchestrated by the Kenya Ministry of Health, in collaboration with esteemed research institutions such as the KEMRI Wellcome Trust Research Programme (KWTRP), African Population and Health Research Center (APHRC), and KEMRI Center for Global Health Research/Centers for Disease Control Kenya (KEMRI-CGHR/CDC Kenya). This concerted effort has resulted in the implementation of SARS-CoV-2 serosurveillance initiatives across diverse populations of interest.

In this collaboration, the utilization of Health and Demographic Surveillance Sites (HDSS) has emerged as a pivotal strategy. These sites, strategically dispersed across Kenya, have proven instrumental in providing insights into the cumulative extent of SARS-CoV-2 infections within the country's general population. The HDSS framework not only serves as a surveillance infrastructure but also as a dynamic platform that enables the collection of context-specific data critical for evidence-based decision-making. By strategically focusing on diverse populations, the serosurveillance efforts have transcended conventional epidemiological boundaries, providing a comprehensive understanding of the virus's impact on various demographic, geographic, and socioeconomic strata.

In this report, we share outcomes of the fourth sero-survey conducted from July to October 2023 among residents of two informal settlements in Nairobi, namely Korogocho and Viwandani. The Nairobi Urban Health and Demographic Surveillance System (NUHDSS), run by APHRC, served as the sampling framework from which a random selection of participants was made. Similar surveys were separately conducted in Kisumu, Kilifi, Siaya, and Kibera area in Nairobi.

### UNITS OF ANALYSIS

This study analyzed data from blood samples and sociodemographic data from individual respondents who are residents of Korogocho and Viwandani.

## Scope

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### NOTES

The scope of the KEMIS study includes:

Sociodemographic information: Participants name, education, religion, age, gender, place of residence.

Health information: Access to prevention services, outmigration and immigration information, vaccination status of children participants, COVID-19 vaccination status, laboratory information including blood sample collection.

## KEYWORDS

Serosurveillance, Covid-19 Antibodies

## Coverage

## GEOGRAPHIC COVERAGE

National Coverage

## UNIVERSE

The survey covered all the Nairobi Urban Health and Demographic Surveillance System (NUHDSS) household members, Nairobi

## Producers and Sponsors

## PRIMARY INVESTIGATOR(S)

Name	Affiliation
Dr. Abdhalah Ziraba	APHRC

## OTHER PRODUCER(S)

Name	Affiliation	Role
Maurine Ng'oda	APHRC	Research Officer
Salma Musa	APHRC	Community liason
Joseph Ndung'u	APHRC	Statistician

## FUNDING

Name	Abbreviation	Role
Bill and Melinda Gates Foundation	BMGF	Funder

## OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Korogocho and Viwandani administration		Sensitization and community mobilization
Community Koch FM and Rueben FM		Sensitization and community mobilization
Residents of Korogocho and Viwandani		Study participants
Community field team	APHRC	Data collection

## Metadata Production

## METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
African Population and Health Research Center	APHRC		Documentation of the DDI

## DATE OF METADATA PRODUCTION

2023-12-05

## DDI DOCUMENT VERSION

Version 1.0

DDI DOCUMENT ID

DDI-KEN-APHRC-KEMIS3-2023-v1.0

## Sampling

### Sampling Procedure

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This study was conducted on a randomly selected population of 850 adults and children living within the health and demographic surveillance system area (HDSS) run by APHRC. We used the Nairobi Urban Health and Demographic Surveillance System (NUHDSS) database as the sampling frame. We collected a single blood sample from each participant (5ml from adults and 2ml from children) and analysed for SARS-CoV-2 antibodies. In addition, 10 percent of the sample population was involved in a pilot of the feasibility of dry blood spot (DBS) for serosurveillance.

### Deviations from Sample Design

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We did not manage to get all the 850 study participants in the targetted sample as a result of field realities. As a result, we replaced participants that were not found with those with similar sociodemographic characteristics coming from the same geographical locations.

### Response Rate

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The response rate was 100%

# Questionnaires

## Overview

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The study used a participants' questionnaire (SARS COV-2 Sero-survey - Questionnaire) to collect information from the participants. The questionnaire was developed in English, and translated to Swahili. Information captured in the questionnaire included:

Sociodemographic information: Participants name, education, religion, age, gender, place of residence.

Health information: Access to prevention services, outmigration and immigration information, vaccination status of children participants, COVID-19 vaccination, laboratory information including blood sample collection and blood grouping. Data collection was conducted electronically. Participants were assigned unique numbers which were used to label blood samples.

## Data Collection

### Data Collection Dates

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Start	End	Cycle
2023-07-04	2023-10-08	Round 4

### Data Collection Mode

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Face-to-face [f2f]

### Questionnaires

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### Supervision

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The data was collected by a team of field staff - including 11 field interviewers, 1 field coordinator, 1 field supervisor, 2 team leaders and 2 lab Techs. This team was coordinated by a research officer. Overall oversight for the project was provided by the PI. The Field interviewers were divided into mobilizers (who conducted consenting at household level) and interviewers who conducted interviews at the site office. Lab activities were conducted by the Lab Tech.

## Data Processing

### Data Editing

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There was no data entry because the study questionnaire was uploaded to an online platform. Discrepancies realized in the generated database were resolved through consensus in data review meetings. Consultations were made with the PI and the larger KEMRI team on a needs basis. The tool was programmed into a survey CTO.

### Other Processing

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The blood Samples were centrifuged and serum separated onsite, stored at -80°C at the main office for transportation to the Kilifi Wellcome Trust Research Program (KWTRP) laboratories for COVID-19 IgM and IgG antibody analysis. Dry blood samples were also collected using two different approaches including the DBS paper and the mitra device, the filter papers were stored at room temperature and later shipped to the kemri lab for analysis. Mitra samples were stored at -20, and later shipped for analysis.



## Data Appraisal

### **Estimates of Sampling Error**

For each HDSS location, the population register was used to select a random sample of residents across all age groups targeting 850 persons in an age-stratified sample as 50 in each 5-year age band between 15-64 years and above and 100 in 5-year band from 0-14 years. This target sample size would yield 300 participants <15 years which would be enough to estimate 1% seroprevalence with a 2% margin of error. It would also give 550 participants in the 15-64-year-age group which would be enough to estimate a seroprevalence of 3-5% with <5% error margin.

## File Description

## Variable List

## Kemis 3

Content	The file contains data on: Sociodemographic information: Participants name, education, religion, age, gender, place of residence. Health information: Access to prevention services, outmigration and immigration information, vaccination status of children participants, COVID-19 vaccination, laboratory information including blood sample collection and blood grouping.				
Cases	850				
Variable(s)	117				
Structure	Type: Keys: ()				
Version					
Producer	African Population and Health Research Centre(APHRC)				
Missing Data	Missing data was coded as 9999995				

## Variables

ID	NAME	LABEL	TYPE	FORMAT	QUESTION
V355	fk_study		discrete	character	na
V356	serial		contin	numeric	na
V357	sex		discrete	character	Sex at birth:
V358	dob		discrete	character	na
V359	age_y		contin	numeric	Estimated age in years:  _ _ _
V360	agecat	RECODE of age_y	discrete	numeric	na
V362	age_strata		discrete	numeric	na
V363	location		discrete	character	Location
V364	sub_location		discrete	character	Sub-location:
V365	res_status		discrete	numeric	5.1 Residency status:
V366	date_visit		discrete	character	Date of visit (DD/MMM/YYYY):
V367	consent		discrete	numeric	5.2 Consent:  _
V368	reason_not_consent		discrete	numeric	Reason why refused/Withdrawn to participate .
V369	sample_collected		discrete	numeric	na
V370	sample_date_collected		discrete	character	Time of sample collection (hh:mm; 24hr clock)
V371	time_blood		discrete	character	Time of sample collection (hh:mm; 24hr clock)
V372	sample_collected_by		contin	numeric	na
V373	education_level		discrete	numeric	6.4 Education:  _
V374	religion		discrete	numeric	6.5 Religion:  _
V375	symptoms_3months		discrete	numeric	10.1 In the past 3 months, have you experienced any of the following
V376	fever		discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: History of fever
V377	fatigue		discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Fatigue

V378	pain	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Pain
V379	weakness	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: General weakness
V380	diarrhoea	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Diarrhoea
V381	cough	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Cough
V382	nausea_vomitting	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Nausea/vomiting
V383	sore_throat	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Sore throat
V384	headache	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Headache
V385	runny_nose	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Congestion/runny nose
V386	chills	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Chills
V387	loss_taste	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: New loss of taste
V388	loss_smell	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: New loss of smell
V389	irritability	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Irritability/confusion
V390	difficult_breathing	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Shortness of breath/difficulty breathing
V391	other_symptoms	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Other, specify
V392	unknown_symptoms	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: UNKNOWN(all)
V393	no_symptoms	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: NO SYMPTOMS
V394	chest_pain	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Chest
V395	abdominal_pain	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Abdominal

V396	joint_pain	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Joint
V397	muscular_pain	discrete	numeric	10.1 In the past 3 months, have you experienced any of the following: Muscular
V398	symptoms_2weeks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ }
V399	fever_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } : History of fever
V400	fatigue_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Fatigue
V401	pain_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Pain
V402	weakness_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } General weakness
V403	diarrhoea_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Diarrhoea
V404	cough_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Cough
V405	nausea_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Nausea
V406	nausea_vomitting_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Nausea/vomiting
V407	sore_throat_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Sore throat
V408	headache_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Headache
V409	runny_nose_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Congestion/runny nose
V410	chills_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Chills

V411	loss_taste_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } New loss of taste
V412	loss_smell_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } New loss of smell
V413	irritability_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Irritability/confusion
V414	difficult_breathing_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Shortness of breath/difficulty breathing
V415	other_symptoms_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Other. specify
V416	unknown_symptoms_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } UNKNOWN(all)
V417	no_symptoms_2wks	discrete	numeric	10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } NO SYMPTOMS
V418	medical_attention	discrete	numeric	11.1 Did any of these symptoms require you to seek medical attention?
V419	miss_work	discrete	numeric	11.2 Did any of these symptoms cause you to miss work?
V420	hospitalized	discrete	numeric	11.3 Did any of these symptoms require you to be hospitalised?
V421	covid_vaccine	discrete	numeric	12.1 Have you had a COVID-19 vaccine?  __
V422	no_doses	discrete	numeric	12.2 How many doses?  __
V423	vaccine_type	discrete	numeric	COVID vaccine type?
V424	dose1date	discrete	character	Dose 1 type:  __ date  _d_ _d_ _ /_m_ _m_ _m_ _ /_y_ _y_
V425	vaccine_type2	discrete	numeric	COVID vaccine type?
V426	dose2date	discrete	character	Dose 2 type:  __ date  _d_ _d_ _ /_m_ _m_ _m_ _ /_y_ _y_
V427	confirmed_vaccination	discrete	numeric	12.3 Vaccination confirmed by:
V428	test_positive	discrete	numeric	Have you ever tested for COVID?)?  __
V429	date_positive	discrete	character	If Positive , Date last Positive test  d_ _d_ _m_ _m_ _ /_y_ _y_
V430	bcg_scar	discrete	numeric	13.1 Does the participant have a BCG scar?  __
V431	vaccine_records	discrete	numeric	Do you have vaccination records for (child's Name)?  __

V432	reason_card_miss		discrete	numeric	14.11 Reason why vaccination card is not available.  _
V434	date_created		discrete	character	na
V435	date_updated		discrete	character	na
V436	creation_name		discrete	character	na
V437	vaccine_duration		contin	numeric	na
V438	OD	OD	contin	numeric	na
V439	NegOD	Neg OD	contin	numeric	na
V440	ODRatio	OD Ratio	contin	numeric	na
V441	BAUml	BAU/ml	contin	numeric	na
V442	seropos		discrete	numeric	na
V444	site		discrete	character	na
V445	microsample	Agreed to microsampling pilot	discrete	numeric	Agreed to microsampling pilot _
V446	capillary_finger_paper	Capillary finger prick done for filter paper	discrete	numeric	16.1 Capillary finger prick done for filter paper
V447	blood_spots	All spots on the filter paper correctly filled with blood	discrete	numeric	16.1.1 All spots on the filter paper correctly filled with blood.
V448	blood_spots_challenge	blood_spots_challenge	discrete	numeric	If no,provide narrative on challenge:
V449	blood_spots_challenge_specify	blood_spots_challenge	discrete	character	If no,provide narrative on challenge: Other- Specify
V450	capillary_finger_mitra	Capillary finger prick done for Mitra device	discrete	numeric	16.2 Capillary finger prick done for Mitra device
V451	mitra_filled	All tips on the Mitra device correctly filled with blood	discrete	numeric	16.2.1 All tips on the Mitra device correctly filled with blood.  _
V452	mitra_filled_challenge	mitra_filled_challenge	discrete	numeric	If no,provide narrative on challenge:
V453	mitra_filled_challenge_specify	mitra_filled_challenge	discrete	character	If no,provide narrative on challenge: Other- Specify
V454	easy_devices	In your opinion, which of the three sample collections was easier to do	discrete	numeric	16.3 In your opinion, which of the three sample collections was easier to do?  _
V455	easy_devices_reasons		discrete	numeric	16.3 In your opinion, which of the three sample collections was easier to do?  _  : Other, specify
V456	easy_devices_reasons_other		discrete	character	16.3 In your opinion, which of the three sample collections was easier to do?  _  : Other, specify
V457	venous_blood	Venous blood Sample collection difficulty	discrete	numeric	17.1 Venous blood:
V458	venous_blood_specify		discrete	character	17.1 Venous blood: Other(specify)
V459	paper_dbs	Filter paper DBS Sample collection difficulty	discrete	numeric	17.2 Filter paper DBS:
V460	paper_dbs_specify		discrete	character	17.2 Filter paper DBS: Other(specify)
V461	mitra_dbs	DBS Mitra Sample collection difficulty	discrete	numeric	17.3 DBS Mitra:



V462	mitra_dbs_specify		discrete	character	17.3 DBS Mitra: Other(specify)
V463	no_prick_done	More than one finger prick	discrete	numeric	18.1 More than one finger prick done:  __
V464	no_prick_done_reason	Reason More than one finger prick	discrete	numeric	18.2 If "Yes" to 18.1, Give reason __
V465	no_prick_done_reason_other		discrete	character	18.2 If "Yes" to 18.1, Give reason __  Other(specify)
V466	venous_blood_start		contin	numeric	19.1 Venous blood: Start time:__:__:__ End time:__:__:__ __  N/A sample not taken
V467	venous_blood_end		contin	numeric	19.1 Venous blood: Start time:__:__:__ End time:__:__:__ __  N/A sample not taken
V468	venous_blood_duration		discrete	numeric	na
V469	paper_dbs_start		contin	numeric	19.2 Filter paper DBS: Start time:__:__:__ End time:__:__:__ __  N/A sample not taken
V470	paper_dbs_end		contin	numeric	19.2 Filter paper DBS: Start time:__:__:__ End time:__:__:__ __  N/A sample not taken
V471	paper_dbs_duration		discrete	numeric	na
V472	mitra_dbs_start		contin	numeric	19.3 Mitra DBS: Start time:__:__:__ End time:__:__:__ __  N/A sample not taken
V473	mitra_dbs_end		contin	numeric	19.3 Mitra DBS: Start time:__:__:__ End time:__:__:__ __  N/A sample not taken
V474	mitra_dbs_duration		contin	numeric	na



(fk\_study)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 7

Valid cases: 850

Invalid: 0

**Description**

The unique participant identifier

**Universe**

NUHDSS

**Source of information**

Laboratory bar codes

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(serial)

File: Kemis 3

**Overview**

Type: Continuous

Format: numeric

Width: 10

Decimals: 0

Range: 4001-4850

Valid cases: 850

Invalid: 0

Minimum: 4001

Maximum: 4850

Mean: 4425.5

Standard deviation: 245.5

**Description**

Participant unique identifier

**Universe**

NUHDSS residents

**Source of information**

The laboratory codes

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(sex)

File: Kemis 3

**Overview**

Type: Discrete  
Format: character  
Width: 6

Valid cases: 850  
Invalid: 0

**Description**

The gender of the study participant

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

Sex at birth:

**Post question**

na

**Interviewer instructions**

na

(dob)

File: Kemis 3

**Overview**

Type: Discrete  
Format: character  
Width: 11

Valid cases: 850  
Minimum: NaN  
Maximum: NaN

**Description**

The participant's date of birth

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(age\_y)

File: Kemis 3

**Overview**

Type: Continuous  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 0-87

Valid cases: 850  
Invalid: 0  
Minimum: 0  
Maximum: 87  
Mean: 29.7  
Standard deviation: 21.7

**Description**

The participant's age in years

**Universe**

NUHDSS residents

#### Source of information

The study participant

#### Pre question

na

#### Literal question

Estimated age in years: |\_|\_|\_|

#### Post question

na

#### Interviewer instructions

na

## RECODE of age\_y (agecat)

File: Kemis 3

#### Overview

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 0-14

Valid cases: 850

Invalid: 0

#### Description

The age categories of the participants

#### Universe

NUHDSS residents

#### Source of information

The study participants

#### Pre question

na

#### Literal question

na

#### Post question

na

#### Interviewer instructions

na

## (age\_strata)

File: Kemis 3

#### Overview

Type: Discrete

Format: numeric

Width: 10

Decimals: 0

Range: 1-14

Valid cases: 850

Invalid: 0

#### Description

The division of the participants into predefined strata

#### Universe

NUHDSS residents

#### Source of information

The study participants

#### Pre question

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(location)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 16

Valid cases: 850

Invalid: 0

**Description**

The site for the study

**Universe**

NUHDSS

**Source of information**

The DSS registry

**Pre question**

na

**Literal question**

Location

**Post question**

na

**Interviewer instructions**

na

(sub\_location)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 18

Valid cases: 850

Invalid: 0

**Description**

The site area for the study

**Universe**

NUHDSS

**Source of information**

The DSS registry

**Pre question**

na

**Literal question**

Sub-location:

**Post question**

na

**Interviewer instructions**

na

(res\_status)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 22  
 Decimals: 0  
 Range: 1-7

Valid cases: 850  
 Invalid: 0

**Description**

The residency status of the participants

**Universe**

NUHDSS residents

**Source of information**

The field interviewer

**Pre question**

na

**Literal question**

5.1 Residency status:

**Post question**

na

**Interviewer instructions**

na

(date\_visit)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: character  
 Width: 11

Valid cases: 849  
 Minimum: NaN  
 Maximum: NaN

**Description**

The date of the final interview

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

Date of visit (DD/MMM/YYYY):

**Post question**

na

**Interviewer instructions**

na

(consent)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 1-3

Valid cases: 850  
 Invalid: 0

**Description**

Was consent to participate in the study given?

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

5.2 Consent: |\_\_|

**Post question**

na

**Interviewer instructions**

na

(reason\_not\_consent)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 62  
 Decimals: 0  
 Range: 1-8

Valid cases: 3  
 Invalid: 847

**Description**

What was the reason consent was not given

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

If Consent is NO/Withdrawn

**Literal question**

Reason why refused/Withdrawn to participate .

**Post question**

na

**Interviewer instructions**

na

(sample\_collected)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 1-1

Valid cases: 850  
 Invalid: 0



**Description**

Was the blood sample collected

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(sample\_date\_collected)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 11

Valid cases: 850

Minimum: NaN

Maximum: NaN

**Description**

The date of blood sample collection

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

Time of sample collection (hh:mm; 24hr clock)

**Post question**

na

**Interviewer instructions**

na

(time\_blood)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 5

Valid cases: 849

Invalid: 0

**Description**

What time was the blood sample collected

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

Time of sample collection (hh:mm; 24hr clock)

**Post question**

na

**Interviewer instructions**

na

(sample\_collected\_by)

File: Kemis 3

**Overview**

Type: Continuous

Format: numeric

Width: 12

Decimals: 0

Range: 31-67

Valid cases: 850

Invalid: 0

Minimum: 31

Maximum: 67

Mean: 64.5

Standard deviation: 6.5

**Description**

The code of the lab technician that collected the blood sample

**Universe**

Lab technicians

**Source of information**

The lab technician

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(education\_level)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 20

Decimals: 0

Range: 0-5

Valid cases: 850

Invalid: 0

**Description**

What is the level of education of the participant.

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

6.4 Education: |\_\_|

**Post question**

na

**Interviewer instructions**

na

(religion)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 20  
 Decimals: 0  
 Range: 0-7

Valid cases: 850  
 Invalid: 0

**Description**

What is the religion of the study participant

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

6.5 Religion: |\_\_|

**Post question**

na

**Interviewer instructions**

na

(symptoms\_3months)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-2

Valid cases: 850  
 Invalid: 0

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(fever)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 173  
 Invalid: 677

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: History of fever

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(fatigue)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 87  
 Invalid: 763

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Fatigue

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(pain)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 164  
 Invalid: 686

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Pain

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(weakness)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 87  
 Invalid: 763

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: General weakness

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(diarrhoea)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 140  
 Invalid: 710

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Diarrhoea

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(cough)

File: Kemis 3

**Overview**

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 411  
Invalid: 439

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Cough

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(nausea\_vomitting)

File: Kemis 3

**Overview**

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 70  
Invalid: 780

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Nausea/vomiting

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(sore\_throat)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 1-1

Valid cases: 126

Invalid: 724

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Sore throat

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(headache)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 1-1

Valid cases: 287

Invalid: 563

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Headache

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(runny\_nose)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 1-1

Valid cases: 419

Invalid: 431

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Congestion/runny nose

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(chills)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 1-1

Valid cases: 34

Invalid: 816

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Chills

**Post question**

(check all reported symptoms):



**Interviewer instructions**

na

(loss\_taste)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 84  
 Invalid: 766

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: New loss of taste

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(loss\_smell)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 15  
 Invalid: 835

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: New loss of smell

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

## (irritability)

### File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 34  
Invalid: 816

#### Description

Has the participant experienced the following symptoms in the last three months

#### Universe

NUHDSS residents

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 In the past 3 months, have you experienced any of the following: Irritability/confusion

#### Post question

(check all reported symptoms):

#### Interviewer instructions

na

## (difficult\_breathing)

### File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 73  
Invalid: 777

#### Description

Has the participant experienced the following symptoms in the last three months

#### Universe

NUHDSS residents

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 In the past 3 months, have you experienced any of the following: Shortness of breath/difficulty breathing

#### Post question

(check all reported symptoms):

#### Interviewer instructions

na

## (other\_symptoms)

### File: Kemis 3

#### Overview

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 5  
 Invalid: 845

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: Other, specify

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(unknown\_symptoms)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0

Valid cases: 0  
 Invalid: 850

**Description**

Has the participant experienced the following symptoms in the last three months

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 In the past 3 months, have you experienced any of the following: UNKNOWN(all)

**Post question**

(check all reported symptoms):

**Interviewer instructions**

na

(no\_symptoms)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 147  
 Invalid: 703

**Description**

Has the participant experienced the following symptoms in the last three months

#### Universe

NUHDSS residents

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 In the past 3 months, have you experienced any of the following: NO SYMPTOMS

#### Post question

(check all reported symptoms):

#### Interviewer instructions

na

(chest\_pain)

File: Kemis 3

#### Overview

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 1-1

Valid cases: 41

Invalid: 809

#### Description

Has the participant experienced the following symptoms in the last three months

#### Universe

NUHDSS residents

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 In the past 3 months, have you experienced any of the following: Chest

#### Post question

(check all reported symptoms):

#### Interviewer instructions

na

(abdominal\_pain)

File: Kemis 3

#### Overview

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 1-1

Valid cases: 53

Invalid: 797

#### Description

Has the participant experienced the following symptoms in the last three months

#### Universe

NUHDSS residents

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 In the past 3 months, have you experienced any of the following: Abdominal

#### Post question

(check all reported symptoms):

#### Interviewer instructions

na

(joint\_pain)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 64  
Invalid: 786

#### Description

Has the participant experienced the following symptoms in the last three months

#### Universe

NUHDSS residents

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 In the past 3 months, have you experienced any of the following: Joint

#### Post question

(check all reported symptoms):

#### Interviewer instructions

na

(muscular\_pain)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 21  
Invalid: 829

#### Description

Has the participant experienced the following symptoms in the last three months

#### Universe

NUHDSS residents

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 In the past 3 months, have you experienced any of the following: Muscular

#### Post question

(check all reported symptoms):

#### Interviewer instructions

na

(symptoms\_2weeks)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 12  
Decimals: 0  
Range: 0-2

Valid cases: 850  
Invalid: 0

#### Description

Which of the following symptoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ }

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(fever\_2wks)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 73  
Invalid: 777

#### Description

Which of the following symptoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } : History of fever

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(fatigue\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 35

Invalid: 815

**Description**

Which of the following sympoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Fatigue

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(pain\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 94

Invalid: 756

**Description**

Which of the following sympoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Pain

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(weakness\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 29  
 Invalid: 821

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } General weakness

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(diarrhoea\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 51  
 Invalid: 799

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Diarrhoea

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(cough\_2wks)

File: Kemis 3

**Overview**



Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 223  
 Invalid: 627

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Cough

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(nausea\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0

Valid cases: 0  
 Invalid: 850

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Nausea

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(nausea\_vomitting\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 25  
 Invalid: 825

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Nausea/vomiting

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(sore\_throat\_2wks)

File: Kemis 3

#### Overview

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 1-1

Valid cases: 37

Invalid: 813

#### Description

Which of the following symptoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Sore throat

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(headache\_2wks)

File: Kemis 3

#### Overview

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 1-1

Valid cases: 125

Invalid: 725

#### Description

Which of the following symptoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Headache

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(runny\_nose\_2wks)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 252  
Invalid: 598

#### Description

Which of the following symptoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Congestion/runny nose

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(chills\_2wks)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 12  
Invalid: 838

#### Description

Which of the following symptoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Chills

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(loss\_taste\_2wks)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 36  
Invalid: 814

#### Description

Which of the following sympoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } New loss of taste

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(loss\_smell\_2wks)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-1

Valid cases: 8  
Invalid: 842

#### Description

Which of the following sympoms has the participant experienced in the last two weeks

#### Universe

NUHDSS

#### Source of information

The study participant

#### Pre question

na

#### Literal question

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } New loss of smell

#### Post question

Choose all that apply from Q10

#### Interviewer instructions

na

(irritability\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 13  
 Invalid: 837

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Irritability/confusion

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(difficultBreathing\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 29  
 Invalid: 821

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Shortness of breath/difficulty breathing

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(other\_symptoms\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 2  
 Invalid: 848

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } Other. specify

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(unknown\_symptoms\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0

Valid cases: 0  
 Invalid: 850

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } UNKNOWN(all)

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(no\_symptoms\_2wks)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 1-1

Valid cases: 336  
 Invalid: 514

**Description**

Which of the following symptoms has the participant experienced in the last two weeks

**Universe**

NUHDSS

**Source of information**

The study participant

**Pre question**

na

**Literal question**

10.1 Which of the above symptoms(Q10.1) have you experienced in the last 2 weeks:{ } NO SYMPTOMS

**Post question**

Choose all that apply from Q10

**Interviewer instructions**

na

(medical\_attention)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-2

Valid cases: 703  
 Invalid: 147

**Description**

Did any of the symptoms cause the participant to seek medical attention

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

If you answered yes, Q10,

**Literal question**

11.1 Did any of these symptoms require you to seek medical attention?

**Post question**

na

**Interviewer instructions**

na

(miss\_work)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-2

Valid cases: 703  
 Invalid: 147

**Description**

Did any of the symptoms cause the participant to miss work

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

If you answered yes, Q10,

**Literal question**

11.2 Did any of these symptoms cause you to miss work?

**Post question**

na

**Interviewer instructions**

na

(hospitalized)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 12

Decimals: 0

Range: 0-2

Valid cases: 703

Invalid: 147

**Description**

Did any of the symptoms cause the participants to be hospitalized

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

If you answered yes, Q10,

**Literal question**

11.3 Did any of these symptoms require you to be hospitalised?

**Post question**

na

**Interviewer instructions**

na

(covid\_vaccine)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 15

Decimals: 0

Range: 0-2

Valid cases: 850

Invalid: 0

**Description**

Has the participants had a covid vaccine

**Universe**

NUHDSS residents



**Source of information**

The study participants

**Pre question**

na

**Literal question**

12.1 Have you had a COVID-19 vaccine? |\_\_|

**Post question**

na

**Interviewer instructions**

na

(no\_doses)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 12

Decimals: 0

Range: 1-3

Valid cases: 290

Invalid: 560

**Description**

How many doses of the vaccine has the participant taken

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

12.2 How many doses? |\_\_|

**Post question**

na

**Interviewer instructions**

na

(vaccine\_type)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 12

Decimals: 0

Range: 1-8

Valid cases: 291

Invalid: 559

**Description**

What vaccine type did the participant take

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

COVID vaccine type?

**Post question**

na

**Interviewer instructions**

na

(dose1date)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 11

Valid cases: 290

Minimum: NaN

Maximum: NaN

**Description**

What was the date of the first dose

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

Dose 1 type: |\_\_|date |\_d\_|d\_|/|\_m\_|\_m\_|\_m\_|/|\_y\_|\_y\_|

**Post question**

na

**Interviewer instructions**

na

(vaccine\_type2)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 11

Decimals: 0

Range: 1-8

Valid cases: 180

Invalid: 670

**Description**

What vaccine type did the participant take

**Universe**

NUHDSS residents

**Source of information**

The study participant

**Pre question**

na

**Literal question**

COVID vaccine type?

**Post question**

na

**Interviewer instructions**

na

(dose2date)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 11

Valid cases: 180

Minimum: NaN

Maximum: NaN

**Description**

What was the date of the first dose

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

Dose 2 type: |\_\_|date |\_d\_|\_d\_|\_|\_m\_|\_m\_|\_m\_|\_|\_y\_|\_y\_|

**Post question**

na

**Interviewer instructions**

na

(confirmed\_vaccination)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 16

Decimals: 0

Range: 1-4

Valid cases: 549

Invalid: 301

**Description**

What was the method of vaccine confirmation

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

12.3 Vaccination confirmed by: | |

**Post question**

na

**Interviewer instructions**

na

(test\_positive)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-2

Valid cases: 848  
 Invalid: 2

**Description**

Have you ever tested for COVID

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

Have you ever tested for COVID?)? |\_|

**Post question**

na

**Interviewer instructions**

na

(date\_positive)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: character  
 Width: 11

Valid cases: 2  
 Minimum: NaN  
 Maximum: NaN

**Description**

If you tested positive, what was the date

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

If Positive , Date last Positive test |d\_|d\_|m\_|m\_|/|y\_|y\_|

**Post question**

na

**Interviewer instructions**

na

(bcg\_scar)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-2

Valid cases: 848  
 Invalid: 2

**Description**

Does the participant have a bcg scar?

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

Check for BCG scar (first look at the left, then the right shoulder)

**Literal question**

13.1 Does the participant have a BCG scar? |\_\_|

**Post question**

na

**Interviewer instructions**

na

(vaccine\_records)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 12

Decimals: 0

Range: 0-2

Valid cases: 120

Invalid: 730

**Description**

Routine vaccination records for children under5 years

**Universe**

Children under 5 years

**Source of information**

Caretakers to the children participants

**Pre question**

For children &lt; 5 years, vaccination information from health card

**Literal question**

Do you have vaccination records for (child's Name)? |\_\_|

**Post question**

If you answered YES, in 20.1, Capture Vaccination history from the records provided

**Interviewer instructions**

na

(reason\_card\_miss)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 77

Decimals: 0

Range: 1-6

Valid cases: 59

Invalid: 791

**Description**

What is the reason for the missing vaccination reasons.

**Universe**

Children under 5 years

**Source of information**

Caretakers of the children participants

**Pre question**

na

**Literal question**

14.11 Reason why vaccination card is not available. |\_\_|

**Post question**

(Choose from the List of probable reasons why no records provided )

**Interviewer instructions**

na

(date\_created)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 11

Valid cases: 850

Minimum: NaN

Maximum: NaN

**Description**

This was the date the records were created

**Universe**

NUHDSS

**Source of information**

The field interviewer

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(date\_updated)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 11

Valid cases: 850

Minimum: NaN

Maximum: NaN

**Description**

This was the final date of the creation of records

**Universe**

NUHDSS

**Source of information**

The field interviewer

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(creation\_name)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 9

Valid cases: 850

Invalid: 0

**Description**

The name of the interviewer who created the records

**Universe**

The field interviewers

**Source of information**

The field interviewer

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(vaccine\_duration)

File: Kemis 3

**Overview**

Type: Continuous

Format: numeric

Width: 9

Decimals: 0

Range: 17-1127

Valid cases: 290

Invalid: 560

Minimum: 17

Maximum: 1127

Mean: 553.3

Standard deviation: 170.6

**Description**

The time duration between uptake of the first and subsequent vaccine doses

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

## OD (OD)

## File: Kemis 3

**Overview**

Type: Continuous  
 Format: numeric  
 Width: 10  
 Decimals: 0  
 Range: 0.072-4

Valid cases: 850  
 Invalid: 0  
 Minimum: 0.1  
 Maximum: 4  
 Mean: 1.2  
 Standard deviation: 0.8

**Description**

Blood sample information

**Universe**

The study participants

**Source of information**

Lab report

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

## Neg OD (NegOD)

## File: Kemis 3

**Overview**

Type: Continuous  
 Format: numeric  
 Width: 10  
 Decimals: 0  
 Range: 0.109-0.15175

Valid cases: 850  
 Invalid: 0  
 Minimum: 0.1  
 Maximum: 0.2  
 Mean: 0.1  
 Standard deviation: 0

**Description**

Blood sample information

**Universe**

The study participants

**Source of information**

The lab reports

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

## OD Ratio (ODRatio)

## File: Kemis 3



**Overview**

Type: Continuous  
 Format: numeric  
 Width: 10  
 Decimals: 0  
 Range: 0.644400785854617-34.7826086956522

Valid cases: 850  
 Invalid: 0  
 Minimum: 0.6  
 Maximum: 34.8  
 Mean: 9.5  
 Standard deviation: 7.1

**Description**

Blood sample information

**Universe**

The study participants

**Source of information**

The lab reports

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

BAU/ml (BAUml)

File: Kemis 3

**Overview**

Type: Continuous  
 Format: numeric  
 Width: 10  
 Decimals: 0  
 Range: 25.7377215189873-1155.32005899705

Valid cases: 850  
 Invalid: 0  
 Minimum: 25.7  
 Maximum: 1155.3  
 Mean: 398.7  
 Standard deviation: 268

**Description**

Blood sample information

**Universe**

The study participants

**Source of information**

The lab reports

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(seropos)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 9  
 Decimals: 0  
 Range: 0-1

Valid cases: 850  
 Invalid: 0

**Description**

The blood sample information

**Universe**

The study participants

**Source of information**

The lab reports

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

(site)

## File: Kemis 3

**Overview**

Type: Discrete  
 Format: character  
 Width: 7

Valid cases: 850  
 Invalid: 0

**Description**

The site of the study

**Universe**

NUHDSS

**Source of information**

The DSS registry

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na

Agreed to microsampling pilot (microsample)

## File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-1

Valid cases: 84  
 Invalid: 766

**Description**

Did the participants agree to participating in the microsampling sample

**Universe**

NUHDSS residents

**Source of information**

The study participants

**Pre question**

na

**Literal question**

Agreed to microsampling pilot|\_|

**Post question**

na

**Interviewer instructions**

na

## Capillary finger prick done for filter paper (capillary\_finger\_paper)

### File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 12

Decimals: 0

Range: 0-1

Valid cases: 83

Invalid: 767

**Description**

Was the capillary finger prick done for the filter paper

**Universe**

Microsampling participants

**Source of information**

The study participants

**Pre question**

na

**Literal question**

16.1 Capillary finger prick done for filter paper

**Post question**

na

**Interviewer instructions**

na

## All spots on the filter paper correctly filled with blood (blood\_spots)

### File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 12

Decimals: 0

Range: 0-1

Valid cases: 83

Invalid: 767

**Description**

Were all the spots filled on the filter paper

**Universe**

Microsample participants

**Source of information**

The study participants

**Pre question**

na

**Literal question**

16.1.1 All spots on the filter paper correctly filled with blood.

**Post question**

na

**Interviewer instructions**

na

blood\_spots\_challenge (blood\_spots\_challenge)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 19  
 Decimals: 0  
 Range: 1-3

Valid cases: 0  
 Invalid: 850

**Description**

What were the challenges in using the filter paper

**Universe**

Microsample participants

**Source of information**

The lab technician

**Pre question**

na

**Literal question**

If no,provide narrative on challenge:

**Post question**

na

**Interviewer instructions**

na

blood\_spots\_challenge (blood\_spots\_challenge\_specify)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0  
 Invalid: 0

**Description**

What were other reasons that caused challenges in the use of filter paper

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

If no,provide narrative on challenge: Other- Specify

**Post question**

na

**Interviewer instructions**

na

## Capillary finger prick done for Mitra device (capillary\_finger\_mitra)

### File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-1

Valid cases: 83  
 Invalid: 767

**Description**

Was the capillary finger prick done for the mitra device

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

16.2 Capillary finger prick done for Mitra device

**Post question**

na

**Interviewer instructions**

na

## All tips on the Mitra device correctly filled with blood (mitra\_filled)

### File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-1

Valid cases: 83  
 Invalid: 767

**Description**

Were all the tips filled on the mitra device?

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

16.2.1 All tips on the Mitra device correctly filled with blood. [\_\_]

**Post question**

na

**Interviewer instructions**

na

## mitra\_filled\_challenge (mitra\_filled\_challenge)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 19  
 Decimals: 0  
 Range: 1-3

Valid cases: 0  
 Invalid: 850

**Description**

What were the challenges in the use of the mitra device?

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

If no,provide narrative on challenge:

**Post question**

na

**Interviewer instructions**

na

## mitra\_filled\_challenge (mitra\_filled\_challenge\_specify)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0  
 Invalid: 0

**Description**

What was the specified reason in challenges in filling the mitra device

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

If no,provide narrative on challenge: Other- Specify

**Post question**

na

**Interviewer instructions**

na

In your opinion, which of the three sample collections was easier to do (easy\_devices)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 1-5

Valid cases: 83  
 Invalid: 767

**Description**

In the field staff's opinion, which was the easier device to use

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

16.3 In your opinion, which of the three sample collections was easier to do? |\_\_|

**Post question**

na

**Interviewer instructions**

na

(easy\_devices\_reasons)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 26  
 Decimals: 0  
 Range: 1-5

Valid cases: 3  
 Invalid: 847

**Description**

What were the reasons those devices were easier to use

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

16.3 In your opinion, which of the three sample collections was easier to do? |\_\_| : Other, specify

**Post question**

na

**Interviewer instructions**

na

(easy\_devices\_reasons\_other)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0  
 Invalid: 0

**Description**

What were the specified reasons that device was easier to use

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

16.3 In your opinion, which of the three sample collections was easier to do? |\_\_| : Other, specify

**Post question**

na

**Interviewer instructions**

na

## Venous blood Sample collection difficulty (venous\_blood)

File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 42

Decimals: 0

Range: 1-8

Valid cases: 83

Invalid: 767

**Description**

What was the difficulty in collection of the venous blood sample

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Sample collection difficulty (To be filled by the study staff)

**Literal question**

17.1 Venous blood:

**Post question**

na

**Interviewer instructions**

na

## (venous\_blood\_specify)

File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 1

Valid cases: 0

Invalid: 0

**Description**

What was the specified difficulty in collecting venous blood

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Sample collection difficulty (To be filled by the study staff)



**Literal question**

17.1 Venous blood: Other(specify)

**Post question**

na

**Interviewer instructions**

na

## Filter paper DBS Sample collection difficulty (paper\_dbs)

### File: Kemis 3

**Overview**

Type: Discrete

Format: numeric

Width: 96

Decimals: 0

Range: 1-7

Valid cases: 83

Invalid: 767

**Description**

What was the difficulty in filter paper DBS collection

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Sample collection difficulty (To be filled by the study staff)

**Literal question**

17.2 Filter paper DBS:

**Post question**

na

**Interviewer instructions**

na

## (paper\_dbs\_specify)

### File: Kemis 3

**Overview**

Type: Discrete

Format: character

Width: 1

Valid cases: 0

Invalid: 0

**Description**

What was the specified reason for difficulty in the use of paper DBS

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Sample collection difficulty (To be filled by the study staff)

**Literal question**

17.2 Filter paper DBS: Other(specify)

**Post question**

na

**Interviewer instructions**

na

## DBS Mitra Sample collection difficulty (mitra\_dbs)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 88  
 Decimals: 0  
 Range: 1-6

Valid cases: 83  
 Invalid: 767

**Description**

What was the difficulty in the use of mitra DBS

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Sample collection difficulty (To be filled by the study staff)

**Literal question**

17.3 DBS Mitra:

**Post question**

na

**Interviewer instructions**

na

## (mitra\_dbs\_specify)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0  
 Invalid: 0

**Description**

What was the specified reason for the challenges in the use of the DBS mitra

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Sample collection difficulty (To be filled by the study staff)

**Literal question**

17.3 DBS Mitra: Other(specify)

**Post question**

na

**Interviewer instructions**

na

## More than one finger prick (no\_prick\_done)

File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 12  
 Decimals: 0  
 Range: 0-1

Valid cases: 60  
 Invalid: 790

**Description**

Was more than one finger prick done during blood sample collection

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Number of finger pricks done

**Literal question**

18.1 More than one finger prick done: |\_\_|

**Post question**

na

**Interviewer instructions**

na

## Reason More than one finger prick (no\_prick\_done\_reason) File: Kemis 3

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 19  
 Decimals: 0  
 Range: 1-4

Valid cases: 10  
 Invalid: 840

**Description**

What was the reason more than one finger prick was necessary during blood sample collection

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Number of finger pricks done

**Literal question**

18.2 If "Yes" to 18.1, Give reason|\_\_|

**Post question**

na

**Interviewer instructions**

na

## (no\_prick\_done\_reason\_other) File: Kemis 3

**Overview**

Type: Discrete  
 Format: character  
 Width: 8

Valid cases: 0  
 Invalid: 0

**Description**

What was the specified reason the prick was done more than once

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

Number of finger pricks done

**Literal question**

18.2 If "Yes" to 18.1, Give reason|\_| Other(specify)

**Post question**

na

**Interviewer instructions**

na

(venous\_blood\_start)

File: Kemis 3

**Overview**

Type: Continuous

Format: numeric

Width: 11

Decimals: 0

Range: 30240000-61080000

Valid cases: 66

Invalid: 784

Minimum: 30240000

Maximum: 61080000

Mean: 42674545.5

Standard deviation: 6787368.9

**Description**

The start of the venous blood sample collection

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

19.1 Venous blood: Start time:\_\_:\_\_: End time:\_\_:\_\_:|\_| N/A sample not taken

**Post question**

na

**Interviewer instructions**

na

(venous\_blood\_end)

File: Kemis 3

**Overview**

Type: Continuous

Format: numeric

Width: 11

Decimals: 0

Range: 30300000-61200000

Valid cases: 66

Invalid: 784

Minimum: 30300000

Maximum: 61200000

Mean: 42801818.2

Standard deviation: 6780581.1

**Description**

The end of the venous blood sample collection

**Universe**

Microsample participants

**Source of information**

The lab technicians

#### Pre question

na

#### Literal question

19.1 Venous blood: Start time: \_\_\_\_:\_\_\_\_ End time: \_\_\_\_:\_\_\_\_|\_\_| N/A sample not taken

#### Post question

na

#### Interviewer instructions

na

(venous\_blood\_duration)

File: Kemis 3

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 0-19

Valid cases: 66  
Invalid: 784

#### Description

The duration of the collection of the venous blood sample

#### Universe

Microsample participants

#### Source of information

The lab technicians

#### Pre question

na

#### Literal question

na

#### Post question

na

#### Interviewer instructions

na

(paper\_dbs\_start)

File: Kemis 3

#### Overview

Type: Continuous  
Format: numeric  
Width: 11  
Decimals: 0  
Range: 3600000-56460000

Valid cases: 84  
Invalid: 766  
Minimum: 3600000  
Maximum: 56460000  
Mean: 33225000  
Standard deviation: 14817325.9

#### Description

The start of the filter paper DBS collection

#### Universe

Microsample participants

#### Source of information

The lab technicians

#### Pre question

na

#### Literal question

19.2 Filter paper DBS: Start time: \_\_\_\_:\_\_\_\_End time: \_\_\_\_:\_\_\_\_ |\_\_| N/A sample not taken

#### Post question

na

#### Interviewer instructions

na

(paper\_dbs\_end)

File: Kemis 3

#### Overview

Type: Continuous

Format: numeric

Width: 11

Decimals: 0

Range: 3660000-56580000

Valid cases: 84

Invalid: 766

Minimum: 3660000

Maximum: 56580000

Mean: 33279285.7

Standard deviation: 14822268

#### Description

The end of the filter paper DBS collection

#### Universe

Microsample participants

#### Source of information

The lab technicians

#### Pre question

na

#### Literal question

19.2 Filter paper DBS: Start time: \_\_\_\_:\_\_\_\_End time: \_\_\_\_:\_\_\_\_ |\_\_| N/A sample not taken

#### Post question

na

#### Interviewer instructions

na

(paper\_dbs\_duration)

File: Kemis 3

#### Overview

Type: Discrete

Format: numeric

Width: 9

Decimals: 0

Range: 0-4

Valid cases: 84

Invalid: 766

#### Description

The duration and time taken to complete the filter paper DBS collection

#### Universe

Microsample participants

#### Source of information

The lab technicians

#### Pre question

na

#### Literal question

na

#### Post question

na

#### Interviewer instructions

na

(mitra\_dbs\_start)

File: Kemis 3

**Overview**

Type: Continuous  
 Format: numeric  
 Width: 11  
 Decimals: 0  
 Range: 3660000-56580000

Valid cases: 84  
 Invalid: 766  
 Minimum: 3660000  
 Maximum: 56580000  
 Mean: 33312142.9  
 Standard deviation: 14814808

**Description**

The start of the DBS mitra device collection

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

19.3 Mitra DBS: Start time: \_\_\_\_:\_\_\_\_ End time: \_\_\_\_:\_\_\_\_ |\_\_| N/A sample not taken

**Post question**

na

**Interviewer instructions**

na

(mitra\_dbs\_end)

File: Kemis 3

**Overview**

Type: Continuous  
 Format: numeric  
 Width: 11  
 Decimals: 0  
 Range: 3780000-61320000

Valid cases: 84  
 Invalid: 766  
 Minimum: 3780000  
 Maximum: 61320000  
 Mean: 42606428.6  
 Standard deviation: 9129440.3

**Description**

The end of the DBS mitra device collection

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

19.3 Mitra DBS: Start time: \_\_\_\_:\_\_\_\_ End time: \_\_\_\_:\_\_\_\_ |\_\_| N/A sample not taken

**Post question**

na

**Interviewer instructions**

na

(mitra\_dbs\_duration)

File: Kemis 3

**Overview**

Type: Continuous	Valid cases: 84
Format: numeric	Invalid: 766
Width: 9	Minimum: -28
Decimals: 0	Maximum: 722
Range: -28-722	Mean: 154.9
	Standard deviation: 297.4

**Description**

The duration and time taken to complete the DBS mitra device collection

**Universe**

Microsample participants

**Source of information**

The lab technicians

**Pre question**

na

**Literal question**

na

**Post question**

na

**Interviewer instructions**

na



# Documentation

## Questionnaires

### Questionnaire\_2.2

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Title	Questionnaire_2.2
Author(s)	APHRC,KEMRI
Date	20/02/2014
Country	KENYA
Language	ENGLISH, KISWAHILI
Contributor(s)	APHRC,KEMRI
Filename	Questionnaire_2.2.docx

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## Reports

### Technical Report\_ KEMIS III

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Title	Technical Report_ KEMIS III
Author(s)	APHRC,KEMRI
Date	22/02/2024
Country	KENYA
Language	ENGLISH
Contributor(s)	APHRC,KEMRI
Publisher(s)	APHRC,KEMRI
Filename	Technical Report_ KEMIS III.docx

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