

SMART Nutrition Surveys

in the Drought Affected Provinces of Southern Angola 2021

Training Report



28 October to 3 November 2021

Lubango, Huíla, Angola

Facilitated by:

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¹ The Technical Support Team of the GNC Technical Alliance

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Introduction

Southern Angola has suffered repeated and worsening climatic shocks in recent years. In 2020-21, persistently high temperatures and reduced precipitation lead to severe drought with simultaneous increases in food insecurity, hunger, and malnutrition. In the southern Provinces of Huíla and Cunene, prolonged drought conditions affected most municipalities. To evaluate the status of these provinces as compared to the most recent SMART surveys (November 2019) it was decided to conduct one SMART survey in each province. The surveys were a collaborative effort between the Government of Angola, UNICEF and World Vision.

To ensure strong technical support for the surveys, two Assessment Advisors from the GNC Technical Alliance TST were invited by UNICEF to facilitate the SMART enumerator training in Lubango, Huíla.

Objectives

The aim of this training was to prepare enumerators and supervisors to conduct a SMART Nutrition Survey to produce high quality results representative of the population of Huíla and Cunene Provinces. By the end of the training, it was desirable that each participant demonstrated their capacity to:

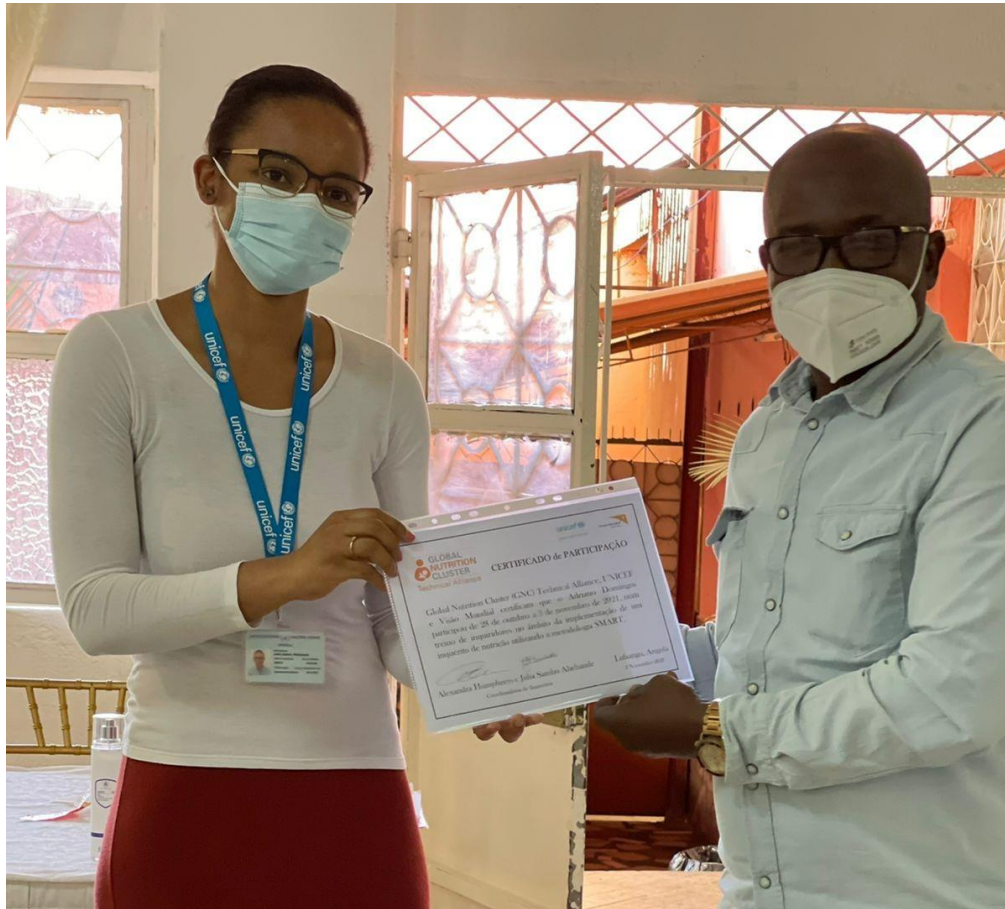
- Conduct representative sampling at cluster level in accordance with the SMART Methodology
- Take quality anthropometric measurements with a high level of precision and accuracy
- Estimate the age of children without documentation using a local events calendar
- Pose questions in an objective and consistent manner to collect additional indicators
- Enter data into the electronic questionnaire using KoboCollect

Of the 19 enumerators invited to the training, the 15 that showed the strongest capacity to conduct the above were invited to continue to data collection.

Training Details

The training was held at the Waholama Lodge in Lubango from 28 October to 3 November 2021. All 19 enumerators and 5 supervisors were nominated World Vision staff. In addition, 2 colleagues from the Direcção Nacional de Saúde Pública (DNSP) provided additional supervision support. Therefore, among training participants 24 (92.3%) were INGO staff and 2 (7.7%) were government staff. Nine (34.6%) participants were women and 17 (65.4%) were men. 12 (46.2%) participants were from Cunene Province and 12 (46.2%) were from Huíla Province and 2 (7.7%) were from Luanda. A complete list of participants is available in **Annex I**. At the end of the training, all participants received certificates of participation.

Júlia Sambo Abchande Awarding a Certificate of Participation to Dr. Adriano Domingos



The training was co-led by Alexa Humphreys (with English-Portuguese interpretation support) and Júlia Sambo Abchande. Nominated training participants led supplementary sessions on general nutrition (Adriano Domingos), the current nutrition status of Huíla Province (Adilson Pedro), and the current nutrition status of Cunene Province (Esmeralda Mwavefokangue). In addition, guest presenters led a session on WASH Indicators (César Soki, WASH Specialist from World Vision), and a session on the use of maps to identify the boundaries of enumeration areas (A specialist from the Instituto Nacional de Estatística).

In addition, 1 World Vision staff member was designed as an interpreter for Alexa Humphreys and 1 World Vision staff member provided logistics and administrative support throughout the entire training. Not including guest facilitators, 30 persons were present for the duration of the training.

COVID-19 Considerations

As this training took place during the COVID-19 pandemic, additional measures were implemented to reduce the possibility of COVID-19 transmission and ensure the safety of the training participants. The primary measures included the following:

- All training participants were required to have at least one dose of COVID-19 vaccine
- All training participants were tested for COVID-19 the morning of the training and the day before data collection began
- Every participant was provided masks and hand sanitizer for the duration of the training
- Each morning a COVID-19 screening checklist was administered to each training participant, including screening for temperature $>38^{\circ}\text{C}$
- Participant chairs were purposely spaced throughout the training room to ensure physical distancing
- Group activities were minimized, and every training participant was pre-assigned a partner when activities required two persons. Their training partner remained unchanged during the entire training
- The number of children used for practicing anthropometric measurements was reduced, and the standardization test was conducted in different waves (1st 5 children before lunch, 2nd 5 children after lunch) to reduce the amount of time children were involved in the exercise

Thankfully, no one presented with COVID-19 symptoms or tested positive for COVID-19 during the training period.

Content

The training was conducted over 7 days: 4 days of theory, 1 day of standardization test, 1 day of survey pilot, and 1 concluding day where everyone was re-tested for COVID-19, participation certificates were received, final survey teams and roles were announced, all materials were assigned and handed over to the survey participants, and final briefings took place in preparation for field work to begin the following day. **Table 1** below summarizes the training techniques used to train on different topics. Due to COVID-19, small group work was minimized, and PowerPoint was relied on more heavily than in pre-COVID-19 contexts. The complete training program is available in **Annex II**.

Table 1: Training Techniques per Training Topic, Lubango Angola 2021

Topic	Training Technique
COVID-19 measures	<ul style="list-style-type: none"> ✓ PowerPoint presentation ✓ Practical examples ✓ Daily quizzes
Introduction to the SMART Methodology	
Sampling procedures	
Introduction to anthropometric measurements and diagnosing acute malnutrition	
Measuring height	<ul style="list-style-type: none"> ✓ PowerPoint Presentation ✓ Practice with a child only in cases where both paired participants had no previous experience with height measurements
Measuring weight	<ul style="list-style-type: none"> ✓ PowerPoint Presentation ✓ Practice in pairs (on one-another using)
Measuring MUAC	<ul style="list-style-type: none"> ✓ PowerPoint Presentation ✓ Practice in pairs (on one-another and using Adult MUAC tapes)
Interpreting the Z-score table (available in Annex IV)	<ul style="list-style-type: none"> ✓ PowerPoint Presentation ✓ Practical examples ✓ Daily quizzes
Local events calendars	<ul style="list-style-type: none"> ✓ PowerPoint Presentation ✓ Development of calendar in pairs ✓ Role-playing in pairs
Reading enumeration area maps	<ul style="list-style-type: none"> ✓ PowerPoint Presentation
Supplementary indicators: WASH, IYCF, and Health	<ul style="list-style-type: none"> ✓ PowerPoint Presentation ✓ Daily quizzes
Team roles	<ul style="list-style-type: none"> ✓ PowerPoint Presentation
Paper forms	<ul style="list-style-type: none"> ✓ PowerPoint Presentation ✓ Practical examples
KoboToolbox	<ul style="list-style-type: none"> ✓ PowerPoint Presentation ✓ Practical examples ✓ Large group harmonization exercise across local languages (Umbundu, Nyaneka, and Kwanhama)

Pre-test and Post-test

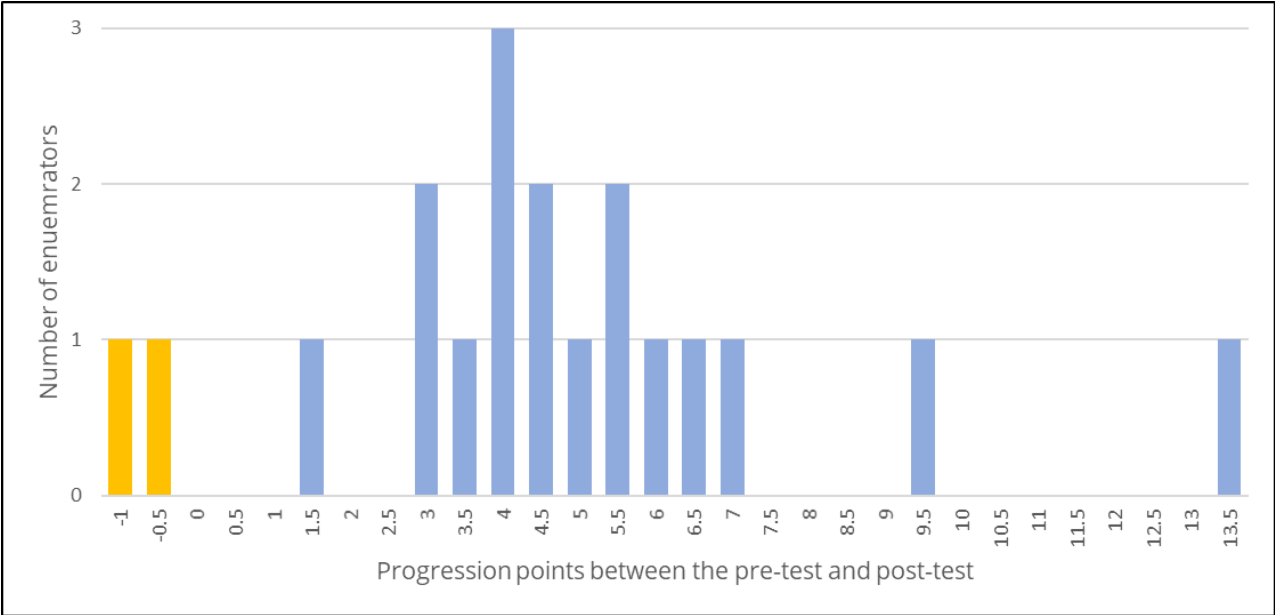
The 19 enumerators received an identical pre-test and post-test covering important technical and practical information shared during the training. The supervisors were excused from this exercise as their roles were pre-assigned. The post-test score and the progression between the two scores was taken into consideration when selecting the final enumerators and their roles for data collection. The complete test is available in **Annex III**. The maximum possible score was out of 20 points.

Pre-test results: The lowest score was 4.5 points (22.5%) while the highest score was 14.5 points (72.5%). The average score was 9.8 points (49.0%).

Post-test results: The lowest score was 10.5 points (52.5%) while the highest score was 18 points (90.0%). The average score was 14.4 points (72.0%).

Progression: The progression between the pre-test and post-test is presented in **Figure 1** below. Two enumerators received a slightly lower score on the post-test than the pre-test. The largest progression was from the enumerator who scored the lowest on the pre-test (4.5 points) and the highest on the post-test (18 points), or a 13.5-point progression. The average progression was an increase in 4.7 points between pre-test and post-test.

Figure 1: The progression between pre-test and post-test scores among SMART enumerators, Lubango Angola 2021



Standardization Test

A standardization test is a critical exercise for the SMART Methodology where enumerators measure ten children twice for their height, weight, and MUAC. In this way, enumerators are compared against themselves and their colleagues to evaluate their accuracy and precision in measurement taking. All 19 enumerators took part in the standardization test while the supervisors monitored the exercise.

The objective of this test is to evaluate all enumerators and determine who is considered “standardized” across the three anthropometric measurements to assign the best measurement takers to act as measurers during data collection. In addition, for this survey the team leader assisted the measurer with measurement taking, and therefore this team member also needed to demonstrate sufficient capacity to take quality measurements.

Upon analysis of the results of the standardization test, it was determined that 6 (31.6%) enumerators were considered standardized across all three measurements. A summary of the results is presented in **Table 2** below.

Table 2: Results of the standardization test, Lubango Angola 2021

Results of the standardization test	Number of enumerators	%
Standardized across all three measurements	6	31.6%
Standardized for two of three measurements	5	26.3%
Standardized for one of three measurements	5	26.3%
Not standardized for any measurements	3	15.8%
Total	19	100.0%

Survey Pilot

The survey pilot was conducted in enumeration areas of Lubango that had not been selected for the actual data collection. Each of the six pilot teams was given one enumeration area to survey where they were tasked with conducting the appropriate sampling methods and surveying four households. Each team was visited by one or more Assessment Advisors during the pilot and provided direct technical guidance for improvement.

Conclusion

All considered, the training was timely and well-executed, thanks to exceptionally dynamic logistic support from World Vision. All enumerators and supervisors participated in the complete training. The final five teams were composed of 15 enumerators who had demonstrated their capacity and dedication to the exercise during the training. The biggest challenge was fitting all training sessions into each day, as approximately half of the sessions relied on interpretation which adding more time to the sessions. If the same training is repeated in the future, either all training facilitators should be fluent in Portuguese, or an additional day or half-day should be allotted for the training. A larger training room to facilitate physical distancing with adequate WASH amenities would also be recommended for future trainings during the COVID-19 pandemic.

Annex I: List of Participants

N	Name	Sex	Organization	Residence	Final Survey Role
1	Adriano Domingos	M	DNSP	Luanda	Coordinating Supervisor
2	Paula Gongga	F	DNSP	Luanda	Coordinating Supervisor
3	Teófilo Manuel Emílio	M	World Vision	Huíla	Supervisor
4	Domingos Miguel Nangafina	M	World Vision	Huíla	Supervisor
5	Adilson Pedro	M	World Vision	Huíla	Supervisor
6	Armando Sambambi	M	World Vision	Cunene	Supervisor
7	Esmeralda Mwawefokangue	F	World Vision	Cunene	Supervisor
8	Zaiana Toco Afonso	M	World Vision	Cunene	Team Leader
9	Leticia Milândia António Chievo	F	World Vision	Huíla	Team Leader
10	Manuel Vassovava	M	World Vision	Cunene	Team Leader
11	Jorge Pedro Jaime Bahu	M	World Vision	Huíla	Team Leader
12	José do Rosário Benguela Chilanda	M	World Vision	Huíla	Team Leader
13	Eduardo Oliveira Samoma	M	World Vision	Huíla	Kobo Leader
14	João Samoma	M	World Vision	Huíla	Kobo Leader
15	Neusa Chombe Baptista Chinanga	F	World Vision	Huíla	Kobo Leader
16	Emília Bimbi Tobias Fernando	F	World Vision	Cunene	Kobo Leader
17	Letícia Engrácia Tembo Jorge	F	World Vision	Huíla	Kobo Leader
18	Tuhanga Ndaposiso	M	World Vision	Cunene	Measurer
19	Eduardo Paulo	M	World Vision	Cunene	Measurer
20	Hambeleleni Tuyenikelao Mweneni Paulo	F	World Vision	Cunene	Measurer
21	Evaristo Chiliwa Sassonga Tiago	M	World Vision	Huíla	Measurer
22	Cláudio Joaquim João	M	World Vision	Cunene	Measurer
23	Gabriel Domingos	M	World Vision	Cunene	Standby
24	Domingas Fiengofika Eusebio	F	World Vision	Cunene	Standby
25	Bertila Penehafo da Conceição Baptista	F	World Vision	Cunene	Standby
26	Amândio Francisco P. Teófilo	N	World Vision	Huíla	Standby

Annex II: Training Program

Dia 1 - Introdução e metodologia SMART		
Data	Hora	Tema e atividades
Quinta-feira 28 de outubro	8h00-10h00	<ul style="list-style-type: none"> • Testagem para COVID-19
	10h00-10h15	Café
	10h15-11h00	<ul style="list-style-type: none"> • Pré-teste
	11h00-11h45	<ul style="list-style-type: none"> • Sessão de abertura • Apresentação de todos os participantes • Regras da formação
	11h45-12h15	<ul style="list-style-type: none"> • Objectivos da formação • Cronograma do inquérito • Composição das equipas
	12h15-12h45	<ul style="list-style-type: none"> • Implementação de inquéritos durante a pandemia da COVID-19
	12h45-13h30	<ul style="list-style-type: none"> • Visão geral da nutrição • Estado nutricional da Huíla e do Cunene
	13h30-14h15	Almoço
	14h15-16h00	<ul style="list-style-type: none"> • Introdução à Metodologia SMART • Amostragem, definições, métodos e passos
	16h00-17h00	<ul style="list-style-type: none"> • Mapeamento
17h00-17h30	<ul style="list-style-type: none"> • Casos especiais 	
Dia 2 - Antropometria e Calendário de Eventos Locais		
Data	Hora	Tema e atividades
Sexta-feira 29 de outubro	8h00-9h00	<ul style="list-style-type: none"> • Resumo do dia 1
	9h00-9h30	<ul style="list-style-type: none"> • Introdução à antropometria • Parâmetros
	9h30-10h00	<ul style="list-style-type: none"> • Diagnóstico da desnutrição aguda • Prática: MUAC em adultos
	10h00-10h15	Café
	10h15-11h00	<ul style="list-style-type: none"> • Peso-para-altura z-scores
	11h00-11h45	<ul style="list-style-type: none"> • Prática de peso/altura: z-score
	11h45-12h45	<ul style="list-style-type: none"> • Introdução ao calendário de eventos locais • Porquê e como é usado • Trabalho em grupo: calendário de eventos locais
	12h45-13h30	<ul style="list-style-type: none"> • Apresentações da actividade em grupo: calendário de eventos locais
	13h30-14h15	Almoço
	14h15-15h15	<ul style="list-style-type: none"> • Mapeamento

	15h15-16h30	<ul style="list-style-type: none"> • Discussão e planeamento de como visitar de forma mais eficiente todos os clusters por província
Dia 3 - Calendário de Eventos Locais e Indicadores		
Data	Hora	Tema e atividades
Sábado 30 de outubro	8h00-9h00	<ul style="list-style-type: none"> • Resumo do Dia 2
	9h00-10h00	<ul style="list-style-type: none"> • WASH
	10h00-10h15	Café
	10h15-11h15	<ul style="list-style-type: none"> • Z-scores
	11h15-12h15	<ul style="list-style-type: none"> • Planeamento de movimentos (como visitar os clusters de forma mais eficiente)
	12h15-13h00	<ul style="list-style-type: none"> • Distribuir o calendário de eventos locais para discussão e correção
	13h00-13h30	<ul style="list-style-type: none"> • Prática com o calendário de eventos em pares
	13h30-14h30	Almoço
	14h30-15h00	<ul style="list-style-type: none"> • Indicadores IYCF
	15h00-15h30	<ul style="list-style-type: none"> • Vacinação contra o sarampo, suplementação com vitamina A e diarreia
15h30-16h30	<ul style="list-style-type: none"> • Funções dos membros do inquérito 	
Dia 4 - Todas as formas e o questionário eletrónico		
Data	Hora	Tema e atividades
Domingo 3 de novembro	8h00-9h00	<ul style="list-style-type: none"> • Resumo do Dia 3
	9h00-9h30	<ul style="list-style-type: none"> • Prática com calendário
	9h30-10h00	<ul style="list-style-type: none"> • Ordem de atividades no agregado familiar • Prática com todas as formas
	10h00-10h15	Café
	10h15-11h00	<ul style="list-style-type: none"> • Prática com Todas as formas (continuada)
	11h00-13h30	<ul style="list-style-type: none"> • Introdução à KoboToolbox • Prática com a Kobotoolbox
	13h30-14h30	Almoço
	14h30-15h30	<ul style="list-style-type: none"> • Pratique com todas as formas e KoboToolbox
	15h30-16h30	<ul style="list-style-type: none"> • Interrogatório e perguntas finais
Dia 5 - Teste de padronização		
Data	Hora	Tema e atividades
Segunda-feira 1 de novembro	8h00-9h00	<ul style="list-style-type: none"> • Explicando o teste de padronização
	9h00-11h00	<ul style="list-style-type: none"> • 1ª 5 crianças – onda 1
	10h45-11h00	Café
	11h00-13h00	<ul style="list-style-type: none"> • 1ª 5 crianças – onda 2
	13h00-14h00	Almoço
	14h00-16h00	<ul style="list-style-type: none"> • 2ª 5 crianças – onda 1
	16h00-18h00	<ul style="list-style-type: none"> • 2ª 5 crianças – onda 2
Dia 6 - Piloto		
Data	Hora	Tema e atividades

Terça-feira 2 de novembro	8h00-15h00	<ul style="list-style-type: none"> • Recolha de dados
	15h00-17h00	<ul style="list-style-type: none"> • Sessão para discutir o dia e responder às questões finais • Resultados dos testes de normalização • Pós-teste
Dia 7 - Conclusão		
Data	Hora	Tema e atividades
Quarta-feira 3 de novembro	<i>Durante todo o dia</i>	<ul style="list-style-type: none"> • Testagem para COVID-19 • Cerimónia de encerramento • Anúncio de equipas e funções finais • Atribuição de materiais • Briefing de Segurança e COVID-19 • Preparativos finais para viajar

Annex III: Pre-test and Post-test

Angola Inquérito SMART

Data:	Nome do Inquiridor:
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_____ /20 valores

I. Amostragem

1. Qual é a definição de agregado familiar para este inquérito? **(1.0 valor)**
 - a. Um grupo de pessoas da mesma família.
 - b. Uma pessoa ou grupo de pessoas, familiares ou não, que vivem juntas sob um mesmo tecto e que “comem da mesma panela” e reconhecem a autoridade de uma pessoa, que é o chefe de família.
 - c. Um grupo de pessoas que partilham a fonte de renda.
 - d. Um grupo de pessoas que vivem sobre o mesmo tecto.

2. Um agregado familiar pode ser constituído por apenas um membro. (Verdadeiro ou falso) **(1.0 valor)**

3. Se houver mais de uma criança menor de 5 anos no domicílio, então: **(1.0 valor)**
 - a. Apenas a criança mais nova menor de 5 anos será incluída no inquérito.
 - b. Apenas a criança mais velha menor de 5 anos será incluída no inquérito.
 - c. Todas as crianças menores de 5 anos, mas se houver gémeos medimos apenas um deles.
 - d. Todas as crianças menores de 5 anos serão incluídas no inquérito.

4. Num agregado familiar composto pelo chefe da família (39 anos), sua esposa (34 anos), sua filha de 6 anos, seus filhos gémeos de 37 meses e sua filha recém-nascida (3 meses) em aleitamento materno exclusivo. Quantos membros da família você medirá para o PB/MUAC? **(1.5 valores)**

5. A equipe se apresenta a um dos agregados familiares seleccionados, mas descobre que ele consiste em apenas um homem idoso que vive sozinho. A equipe deve então: **(2 valores)**
 - a. Agradecer ao homem e mude para o próximo domicílio.

- b. Preencher o questionário para as variáveis/indicadores elegíveis.
- c. Substituir este domicílio por um com crianças menores de 5 anos.

II. COVID-19

6. Quando devemos excluir um domicílio do inquérito? **(1.5 valores)**
- a. Quando um dos membros do domicílio tenha estado em contacto com algum casado confirmado de COVID-19 nos últimos 14 dias.
 - b. Quando qualquer membro do domicílio tenha testado positivo para a COVID-19 nos últimos 14 dias.
 - c. Quando a criança menor de 5 anos apresentar uma febre $>38^{\circ}\text{C}$.
7. Devemos limpar os materiais do estudo. **(1.0 valor)**
- a. Somente no fim de cada dia de trabalho.
 - b. No início do dia de trabalho e no fim do dia.
 - c. No fim da actividade em cada agregado familiar.

III. Antropometria

8. Você precisa medir a altura de uma criança cuja idade estimou ser 23 meses. Você deve medir esta criança em pé ou deitada? **(1.0 valor)**

9. A altura será registada com a aproximação de 0,1cm se uma criança tiver 85,4cm, como será registada a altura? **(1.0 valor)**
- a. 85.0
 - b. 85.1
 - c. 85.4
 - d. 85.5

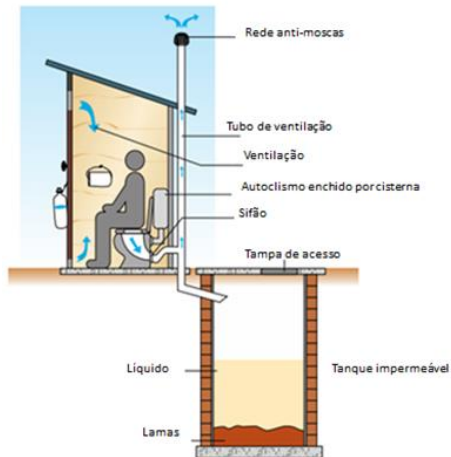
Para as perguntas 10 a 14, consulte o gráfico de pontuação z na última página deste documento.

10. Artur mede 83,3cm e pesa 9,1kg. Onde está seu z-score? **(1.0 valor)**
- a. <-3 z-score

- b. ≥ -3 e < -2 z-score
 - c. ≥ -2 z-score
11. Qual é o estado nutricional de Artur? **(1.0 valor)**
- a. Normal.
 - b. Desnutrição Aguda Moderada
 - c. Desnutrição Aguda Grave
12. João mede 87,4cm e pesa 11,9kg, qual é o Z-score dele? **(1.0 valor)**
- a. < -3 z-score
 - b. ≥ -3 e < -2 z-score
 - c. ≥ -2 z-score
13. Qual é o estado nutricional do João? **(1.0 valor)**
- a. Normal.
 - b. Desnutrição Aguda Moderada
 - c. Desnutrição Aguda Grave
14. Depois da verificação, você conclui que o z-score de Helena é maior que -3 z-score e menor que -2 z-score. Você também observa que a Helena tem edema bilateral. Qual é o seu estado nutricional? **(1.0 valor)**
- a. Normal.
 - b. Desnutrição Aguda Moderada
 - c. Desnutrição Aguda Grave
15. Onde é obtida a medição do PB/MUAC na criança e na mulher? **(1.0 valor)**
- a. Entre o cotovelo e o ombro em qualquer braço.
 - b. Entre o cotovelo e o ombro no braço esquerdo.
 - c. Entre o cotovelo e o ombro do braço direito.
 - d. Na parte frontal do braço direito.
16. No **questionário eletrônico**, se você selecionar “sim” a criança está com edema, quais são os dois próximos passos automaticamente solicitados? **(1.0 valor)**
- a. Perguntar se a criança está envolvida em algum programa de nutrição e peça para tirar uma foto do edema.
 - b. Solicitar que o supervisor confirme o edema e solicitar de foto
 - c. Solicitar para tirar uma foto e preencher o formulário de referenciamento.
 - d. Pedir para tirar uma *selfie* e pedido para publicá-la no Facebook.

IV. WASH – Higiene, Água e Saneamento

17. Que tipo de latrina é a apresentada abaixo? (2 valores)



1. Latrina de fossa melhorada ventilada
2. Descarga da sanita para a fossa séptica
3. Latrina de fossa com laje
4. Sanita de compostagem

Annex IV: Weight-for-Height Z-score Table

ANEXOS

ANEXO 3 : TABELA PESO-POR-ALTURA (OMS2006)

Utilizar a tabela para meninos e meninas (Peso mais elevada independentemente de sexo)													
Comprimento cm	Peso Kg - Z-score						Comprimento cm	Peso Kg - Z-score					
	-4.0	-3	-2	-1.5	-1	0		-4.0	-3	-2	-1.5	-1	0
Utilizar deitadas para as crianças que tenham uma estatura de menos de 87 cm													
45	1.75	1.90	2.07	2.16	2.25	2.46	46	5.5	5.92	6.4	6.65	6.92	7.30
45.5	1.81	1.97	2.14	2.23	2.33	2.55	46.5	5.6	6.02	6.5	6.75	7.03	7.62
46	1.88	2.03	2.21	2.30	2.41	2.63	47	5.7	6.11	6.6	6.86	7.14	7.74
46.5	1.94	2.10	2.28	2.38	2.48	2.72	47.5	5.8	6.2	6.69	6.96	7.24	7.85
47	2.00	2.16	2.35	2.45	2.56	2.80	48	5.8	6.29	6.79	7.06	7.35	7.97
47.5	2.06	2.23	2.42	2.53	2.64	2.89	48.5	5.9	6.38	6.89	7.16	7.45	8.1
48	2.12	2.30	2.50	2.61	2.72	2.97	49	6.0	6.47	6.99	7.26	7.56	8.2
48.5	2.18	2.37	2.57	2.68	2.80	3.06	49.5	6.1	6.56	7.08	7.36	7.66	8.3
49	2.25	2.44	2.65	2.76	2.89	3.16	70	6.2	6.65	7.18	7.46	7.77	8.4
49.5	2.32	2.51	2.73	2.85	2.97	3.25	70.5	6.3	6.74	7.27	7.56	7.87	8.5
50	2.39	2.59	2.81	2.94	3.07	3.35	71	6.3	6.82	7.37	7.66	7.97	8.6
50.5	2.46	2.67	2.90	3.03	3.16	3.46	71.5	6.4	6.91	7.46	7.76	8.1	8.8
51	2.54	2.75	2.99	3.12	3.26	3.56	72	6.5	7.00	7.55	7.86	8.2	8.9
51.5	2.62	2.84	3.08	3.22	3.36	3.66	72.5	6.6	7.08	7.65	7.95	8.3	9.0
52	2.70	2.93	3.18	3.32	3.47	3.79	73	6.7	7.16	7.74	8.0	8.4	9.1
52.5	2.79	3.02	3.28	3.42	3.58	3.91	73.5	6.7	7.25	7.83	8.1	8.5	9.2
53	2.88	3.12	3.38	3.53	3.69	4.03	74	6.8	7.33	7.91	8.2	8.6	9.3
53.5	2.98	3.22	3.49	3.64	3.80	4.16	74.5	6.9	7.41	8.0	8.3	8.7	9.4
54	3.08	3.33	3.61	3.76	3.92	4.29	75	6.9	7.49	8.1	8.4	8.8	9.5
54.5	3.18	3.44	3.73	3.88	4.05	4.42	75.5	7.0	7.56	8.2	8.5	8.8	9.6
55	3.29	3.55	3.85	4.01	4.18	4.55	76	7.1	7.64	8.3	8.6	8.9	9.7
55.5	3.39	3.67	3.97	4.14	4.31	4.69	76.5	7.2	7.72	8.3	8.7	9.0	9.8
56	3.50	3.78	4.10	4.26	4.44	4.83	77	7.2	7.79	8.4	8.8	9.1	9.9
56.5	3.61	3.90	4.22	4.40	4.58	4.98	77.5	7.3	7.87	8.5	8.8	9.2	10.0
57	3.7	4.02	4.35	4.53	4.71	5.13	78	7.4	7.94	8.6	8.9	9.3	10.1
57.5	3.8	4.13	4.47	4.66	4.85	5.27	78.5	7.4	8	8.7	9.0	9.4	10.2
58	3.9	4.25	4.6	4.79	4.99	5.42	79	7.5	8.1	8.7	9.1	9.5	10.3
58.5	4.1	4.37	4.72	4.92	5.12	5.56	79.5	7.6	8.2	8.8	9.2	9.5	10.4
59	4.2	4.49	4.85	5.05	5.25	5.71	80	7.6	8.2	8.9	9.2	9.6	10.4
59.5	4.3	4.6	4.97	5.17	5.39	5.85	80.5	7.7	8.3	9.0	9.3	9.7	10.5
60	4.4	4.71	5.09	5.3	5.52	5.99	81	7.8	8.4	9.1	9.4	9.8	10.6
60.5	4.5	4.82	5.21	5.42	5.65	6.13	81.5	7.8	8.5	9.1	9.5	9.9	10.7
61	4.6	4.93	5.33	5.54	5.77	6.28	82	7.9	8.5	9.2	9.6	10.0	10.8
61.5	4.7	5.04	5.44	5.66	5.89	6.40	82.5	8.0	8.6	9.3	9.7	10.1	10.9
62	4.8	5.14	5.56	5.78	6.01	6.53	83	8.1	8.7	9.4	9.8	10.2	11.0
62.5	4.9	5.25	5.67	5.89	6.13	6.65	83.5	8.2	8.8	9.5	9.9	10.3	11.2
63	5.0	5.35	5.77	6.00	6.25	6.78	84	8.3	8.9	9.6	10.0	10.4	11.3
63.5	5.1	5.45	5.88	6.12	6.36	6.9	84.5	8.3	9	9.7	10.1	10.5	11.4
64	5.1	5.54	5.99	6.23	6.48	7.03	85	8.4	9.1	9.8	10.2	10.6	11.5
64.5	5.2	5.64	6.09	6.33	6.59	7.15	85.5	8.5	9.2	9.9	10.3	10.7	11.6
65	5.3	5.74	6.19	6.44	6.7	7.27	86	8.6	9.3	10.0	10.4	10.8	11.7
65.5	5.4	5.83	6.29	6.55	6.81	7.39	86.5	8.7	9.4	10.1	10.5	11.0	11.9