SAMPLE DESIGN

Appendix A

A.1 INTRODUCTION

This appendix describes the objectives of the survey, the overall sample size, survey domains, and any subsamples used.

The 2018 Zambia Demographic and Health Survey (2018 ZDHS) is a nationwide survey with a nationally representative sample of approximately 13,625 selected households. All women age 15-49 and all men age 15-59 who are usual members of the selected households or who spent the night before the survey in the selected households were eligible for individual interviews. In all households, all women age 15-49 and all children under age 5 were eligible for height and weight measurements and anaemia testing. One woman age 15-49 was selected from each household to complete the domestic violence module. The survey was designed to produce reliable estimates for key indicators at the national level as well as for urban and rural areas and each of the 10 provinces: Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, Northern, North Western, Southern, and Western.

A.2 SAMPLE FRAME

The sampling frame used for the 2018 ZDHS is based on the Census of Population and Housing of the Republic of Zambia (CPH) conducted in 2010, provided by the Zambia Statistics Agency. Zambia is divided into 10 provinces. Each province is subdivided into districts, each district into constituencies, and each constituency into wards. In addition to these administrative units, during the 2010 CPH each ward was subdivided into convenient areas called census supervisory areas (CSAs), and in turn each CSA was subdivided into standard enumeration areas (SEAs). An SEA is a geographical area, usually a city block in an urban area or a village in a rural area, consisting of an adequate number of households; each SEA serves as a counting unit for the population census. The current version of the SEA frame of the 2010 CPH has been updated to accommodate the changes in districts and constituencies that occurred between 2010 and 2017. The list of SEAs has census information on households and population counts. Each SEA has a sketch map delineating its boundaries, with identification information and a measure of size, which is the number of residential households enumerated in the 2010 CPH. This list of SEAs was used as the sampling frame of the 2018 ZDHS.

Table A.1 shows the percentage distribution of households by province and by type of residence according to the 2018 ZDHS sampling frame. The table indicates that 45.7% of households in Zambia are in Lusaka (18.3%), Copperbelt (15.2%), and Eastern (12.2%). In addition, 40.3% of households are in urban areas. The percentage of the household population in urban areas varies from 13.8% in Eastern to 82.1% in Lusaka. **Table A.2** indicates the distribution of SEAs and their average size in number of households by province and by type of residence. There are in total 25,631 SEAs; among them, 7,728 are in urban areas and 17,903 are in rural areas. The average SEA size is 110 households; urban SEAs are larger in size, with an average of 147 households per SEA, whereas rural SEAs have an average of 94 households.

Table A.1 Distribution of residential households by provinces and type of residence

Province	Residential households			Percentage	
	Urban	Rural	Total	Provinces	Urban
Central	76,002	198,744	274,746	9.8	27.7
Copperbelt	336,672	90,217	426,889	15.2	78.9
Eastern	47,371	295,534	342,905	12.2	13.8
Luapula	44,254	199,656	243,910	8.7	18.1
Lusaka	422,029	92,051	514,080	18.3	82.1
Muchinga	26,585	127,665	154,250	5.5	17.2
Northern	44,296	196,260	240,556	8.5	18.4
North Western	31,460	110,464	141,924	5.0	22.2
Southern	79,551	206,791	286,342	10.2	27.8
Western	27,196	163,099	190,295	6.8	14.3
Zambia	**1,135,416**	**1,680,481**	**2,815,897**	**100.0**	**40.3**

Source: The 2010 CPH conducted by the Zambia Statistics Agency.

Table A.2 Distribution of SEAs and their average size in number of households by provinces and type of residence

Province	Number of SEAs			Average SEA size		
	Urban	Rural	Total	Urban	Rural	Total
Central	593	2,234	2,827	128	89	97
Copperbelt	2,351	924	3,275	143	98	130
Eastern	245	3,279	3,524	193	90	97
Luapula	334	1,890	2,224	132	106	110
Lusaka	2,767	833	3,600	153	111	143
Muchinga	188	1,470	1,658	141	87	93
Northern	297	2,207	2,504	149	89	96
North Western	198	984	1,182	159	112	120
Southern	541	2,307	2,848	147	90	101
Western	214	1,775	1,989	127	92	96
Zambia	**7,728**	**17,903**	**25,631**	**147**	**94**	**110**

Source: The 2010 CPH conducted by the Zambia Statistics Agency.

A.3 SAMPLE DESIGN AND IMPLEMENTATION

The 2018 ZDHS sample is stratified and selected in two stages. Each province is stratified into urban and rural areas yielding 20 sampling strata. Samples of SEAs are selected independently in each stratum in two stages. Implicit stratification and proportional allocation are achieved at each of the lower administrative levels by sorting the sampling frame within each sampling stratum before sample selection according to administrative units in different levels and by using a probability proportional to size selection at the first stage of sampling.

In the first stage, 545 SEAs were selected with probability proportional to SEA size and with independent selection in each sampling stratum. The sample allocation is given in **Table A.3**. The SEA size is the number of residential households residing in the SEA based on the 2018 ZDHS sampling frame. A household listing operation was carried out in all of the selected sample SEAs, and the resulting lists of households served as the sampling frame for the selection of households in the next stage. Some of the selected SEAs were large in size. In order to minimise the task of household listing, for the selected SEAs with more than 300 households, each large SEA was segmented. Only one segment was selected for the survey with probability proportional to segment size. Household listing was conducted only in the selected segment. Thus, a 2018 ZDHS cluster is either an SEA or a segment of an SEA.

In the last stage of selection, a fixed number of 25 households per cluster was selected with an equal probability systematic selection from the newly created household listing. The survey interviewers interviewed only the pre-selected households. No replacements and no changes of the pre-selected households were allowed in the implementing stages in order to prevent bias. All women age 15-49 and men age 15-59 who are usual members of the selected households or who spent the night before the survey

in the selected households were eligible for the woman's questionnaire and the man's questionnaire, respectively.

Table A.3 shows the allocation of selected SEAs and households according to provinces and urban/rural areas, and **Table A.4** shows the expected number of completed interviews with women and men according to provinces and urban/rural areas. Based on a fixed sample of 25 households per cluster, the survey selected 545 SEAs, 198 in urban areas and 347 in rural areas. A total of 13,625 residential households were selected for the survey, 4,950 in urban areas and 8,675 in rural areas. The sample was expected to result in about 12,219 completed interviews with women age 15-49 (5,105 in urban areas and 7,114 in rural areas) and about 11,043 completed interviews with men age 15-59 (4,429 in urban areas and 6,614 in rural areas).

Table A.3 The 2018 ZDHS sample allocation of SEAs and households by provinces and type of residence

	Number of SEAs allocated			Number of households allocated		
Province	Urban	Rural	Total	Urban	Rural	Total
Central	18	37	55	450	925	1,375
Copperbelt	37	24	61	925	600	1,525
Eastern	15	47	62	375	1,175	1,550
Luapula	15	39	54	375	975	1,350
Lusaka	42	24	66	1,050	600	1,650
Muchinga	12	33	45	300	825	1,125
Northern	15	38	53	375	950	1,325
North Western	13	30	43	325	750	1,075
Southern	19	38	57	475	950	1,425
Western	12	37	49	300	925	1,225
Zambia	**198**	**347**	**545**	**4,950**	**8,675**	**13,625**

Table A.4 The 2018 ZDHS sample allocation of expected completed women and men interviews by province and type of residence

	Expected number of interviews with women age 15-49			Expected number of interviews with men age 15-59		
Province	Urban	Rural	Total	Urban	Rural	Total
Central	464	758	1,222	402	705	1,107
Copperbelt	954	492	1,446	827	457	1,284
Eastern	387	963	1,350	336	896	1,232
Luapula	387	800	1,187	336	743	1,079
Lusaka	1,083	492	1,575	940	457	1,397
Muchinga	309	676	985	268	629	897
Northern	387	780	1,167	336	725	1,061
North Western	335	615	950	291	572	863
Southern	490	780	1,270	425	725	1,150
Western	309	758	1,067	268	705	973
Zambia	**5,105**	**7,114**	**12,219**	**4,429**	**6,614**	**11,043**

The sample allocations were derived using information obtained from the 2013-14 ZDHS. The average number of women age 15-49 per household is 1.180 in urban areas and 0.988 in rural areas; the average number of men age 15-59 per household is 1.101 in urban areas and 0.954 in rural areas; the household completion rate is 91.1% in urban areas and 86.1% in rural areas; the response rate among women age 15-49 is 95.8% in urban areas and 96.5% in rural areas; and the response rate among men age 15-59 is 89.1% in urban areas and 92.9% in rural areas.

A.4 Sample Probabilities and Sampling Weights

Due to the non-proportional allocation of the sample to different provinces and their urban and rural areas and the possible differences in response rates, sampling weights will be required for any analysis using the 2018 ZDHS data to ensure the actual representativeness of the survey results at the national level and as well as the domain level. Since the 2018 ZDHS sample is a two-stage stratified cluster sample, sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster. The following notations were used:

P_{1hi}: first-stage sampling probability of the i^{th} cluster in stratum h
P_{2hi}: second-stage sampling probability within the i^{th} cluster (households)
P_{hi}: overall sampling probability of any households of the i^{th} cluster in stratum h

Let a_h be the number of SEAs selected in stratum h, M_{hi} the number of households according to the sampling frame in the i^{th} SEA, and $\sum M_{hi}$ the total number of households in the stratum. The probability of selecting the i^{th} SEA in the 2018 ZDHS sample is calculated as follows:

$$\frac{a_h M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected cluster relative to the total number of households in SEA i in stratum h if the SEA is segmented; otherwise, $b_{hi} = 1$. Then the probability of selecting cluster i in the sample is:

$$P_{1hi} = \frac{a_h M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster i in stratum h, and let g_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is therefore the product of the two-stage selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The sampling weight for each household in cluster i of stratum h is the inverse of its overall selection probability:

$$W_{hi} = 1 / P_{hi}$$

The design weights were adjusted for household non-response and individual non-response to obtain the sampling weights for households and for women and men, respectively. Non-response is adjusted at the sampling stratum level. For the household sampling weight, the household design weight is multiplied by the inverse of the household response rate by stratum. For women's individual sampling weight, the household sampling weight is multiplied by the inverse of women's individual response rate by stratum. After adjusting for non-response, the sampling weights are normalised to obtain the final standard weights that appear in the data files. The normalisation process is done to obtain a total number of unweighted cases equal to the total number of weighted cases at the national level for the total number of households, women, and men. Normalisation is done by multiplying the sampling weight by the estimated sampling fraction obtained from the survey for the household weight and the individual women's and men's weights. The normalised weights are relative weights that are valid for estimating means, proportions, ratios, and rates but are not valid for estimating population totals or for pooled data. A special weight for domestic violence was calculated that accounts for the selection of one woman per household and for module nonresponse. HIV weights were produced that accounted for HIV testing nonresponse among women and men separately.

Table A.5 Sample implementation: Women

Percent distribution of households and eligible women age 15-49 by results of the household and individual interviews, and household, eligible women, and overall women response rates, according to residence and province (unweighted), Zambia DHS 2018

	Residence		Province										
Result	Urban	Rural	Central	Copper-belt	Eastern	Luapula	Lusaka	Mu-chinga	Northern	North Western	Southern	Western	Total
Selected households													
Completed (C)	95.3	93.8	95.1	94.8	93.7	99.4	93.9	95.6	94.0	94.0	92.1	91.3	94.4
Household present but no competent respondent at home (HP)	0.6	0.5	0.7	0.3	0.7	0.0	0.5	0.1	0.9	0.5	1.1	0.4	0.5
Refused (R)	0.4	0.2	0.4	0.3	0.3	0.0	0.4	0.0	0.2	0.4	0.1	0.5	0.3
Dwelling not found (DNF)	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Household absent (HA)	1.1	2.1	1.4	1.0	1.7	0.3	1.5	0.6	1.9	2.0	1.6	5.3	1.7
Dwelling vacant/address not a dwelling (DV)	2.3	2.9	1.7	3.1	3.0	0.2	3.3	3.5	2.4	2.6	4.6	2.0	2.7
Dwelling destroyed (DD)	0.2	0.5	0.5	0.3	0.6	0.1	0.4	0.3	0.6	0.7	0.4	0.4	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	4,944	8,651	1,375	1,525	1,550	1,350	1,645	1,125	1,325	1,075	1,400	1,225	13,595
Household response rate (HRR)[1]	98.9	99.3	98.7	99.2	98.9	100.0	99.0	99.9	98.9	99.1	98.6	99.0	99.1
Eligible women													
Completed (EWC)	95.6	97.0	98.7	95.3	95.0	95.9	98.0	97.8	95.2	98.3	95.7	94.6	96.4
Not at home (EWNH)	2.9	2.0	0.5	2.9	3.1	2.6	0.9	1.4	4.0	1.1	3.0	4.6	2.4
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Refused (EWR)	0.9	0.4	0.1	1.3	1.0	0.7	0.3	0.2	0.5	0.5	0.6	0.4	0.6
Partly completed (EWPC)	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Incapacitated (EWI)	0.3	0.4	0.5	0.4	0.7	0.3	0.3	0.4	0.2	0.0	0.5	0.4	0.4
Other (EWO)	0.3	0.1	0.2	0.1	0.1	0.3	0.4	0.1	0.0	0.1	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5,766	8,423	1,416	1,695	1,617	1,474	1,811	1,209	1,301	1,100	1,407	1,159	14,189
Eligible women response rate (EWRR)[2]	95.6	97.0	98.7	95.3	95.0	95.9	98.0	97.8	95.2	98.3	95.7	94.6	96.4
Overall women response rate (ORR)[3]	94.5	96.3	97.4	94.6	94.0	95.9	97.1	97.8	94.2	97.4	94.4	93.6	95.6

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC).
[3] The overall women response rate (OWRR) is calculated as: OWRR = HRR * EWRR/100.

Table A.6 Sample implementation: Men

Percent distribution of households and eligible men age 15-59 by results of the household and individual interviews, and household, eligible men, and overall men response rates, according to residence and province (unweighted), Zambia DHS 2018

	Residence		Province										
Result	Urban	Rural	Central	Copper-belt	Eastern	Luapula	Lusaka	Mu-chinga	Northern	North Western	Southern	Western	Total
Selected households													
Completed (C)	95.3	93.8	95.1	94.8	93.7	99.4	93.9	95.6	94.0	94.0	92.1	91.3	94.4
Household present but no competent respondent at home (HP)	0.6	0.5	0.7	0.3	0.7	0.0	0.5	0.1	0.9	0.5	1.1	0.4	0.5
Refused (R)	0.4	0.2	0.4	0.3	0.3	0.0	0.4	0.0	0.2	0.4	0.1	0.5	0.3
Dwelling not found (DNF)	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Household absent (HA)	1.1	2.1	1.4	1.0	1.7	0.3	1.5	0.6	1.9	2.0	1.6	5.3	1.7
Dwelling vacant/address not a dwelling (DV)	2.3	2.9	1.7	3.1	3.0	0.2	3.3	3.5	2.4	2.6	4.6	2.0	2.7
Dwelling destroyed (DD)	0.2	0.5	0.5	0.3	0.6	0.1	0.4	0.3	0.6	0.7	0.4	0.4	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	4,944	8,651	1,375	1,525	1,550	1,350	1,645	1,125	1,325	1,075	1,400	1,225	13,595
Household response rate (HRR)[1]	98.9	99.3	98.7	99.2	98.9	100.0	99.0	99.9	98.9	99.1	98.6	99.0	99.1
Eligible men													
Completed (EMC)	88.6	93.4	96.8	89.3	87.8	91.8	93.2	96.6	89.3	95.4	88.8	88.3	91.6
Not at home (EMNH)	8.6	5.3	2.3	7.3	10.1	6.9	4.4	2.2	9.7	3.1	9.0	9.7	6.6
Postponed (EMP)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
Refused (EMR)	1.5	0.5	0.1	2.3	0.8	0.7	0.7	0.9	0.2	0.6	1.4	1.1	0.9
Partly completed (EMPC)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incapacitated (EMI)	0.7	0.7	0.7	1.0	1.0	0.6	0.5	0.4	0.7	0.7	0.8	0.7	0.7
Other (EMO)	0.5	0.0	0.1	0.0	0.3	0.0	1.3	0.0	0.0	0.1	0.0	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	5,078	8,173	1,377	1,592	1,647	1,362	1,630	1,112	1,219	960	1,380	972	13,251
Eligible men response rate (EMRR)[2]	88.6	93.4	96.8	89.3	87.8	91.8	93.2	96.6	89.3	95.4	88.8	88.3	91.6
Overall men response rate (ORR)[3]	87.6	92.7	95.6	88.6	86.8	91.8	92.3	96.5	88.3	94.6	87.5	87.4	90.8

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * R}{C + HP + P + R + LNT}$$

[2] The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC).
[3] The overall men response rate (OMRR) is calculated as: OMRR = HRR * EMRR/100.

Table A.7 Coverage of HIV testing by social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Zambia DHS 2018

	HIV test status					
Characteristic	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]	Total	Number
Marital status						
Never married	95.6	3.5	0.4	0.5	100.0	4,321
Ever had sexual intercourse	95.9	3.2	0.4	0.5	100.0	2,520
Never had sexual intercourse	95.1	3.9	0.4	0.6	100.0	1,801
Married/living together	96.5	3.0	0.2	0.2	100.0	7,597
Divorced or separated	96.2	3.1	0.6	0.1	100.0	1,366
Widowed	95.0	3.8	0.3	1.0	100.0	399
Type of union						
In polygynous union	97.4	2.6	0.0	0.0	100.0	834
In non-polygynous union	96.4	3.1	0.3	0.3	100.0	6,696
Not currently in union	95.7	3.4	0.5	0.4	100.0	6,086
Don't know/missing	97.0	3.0	0.0	0.0	100.0	67
Ever had sexual intercourse						
Yes	96.3	3.1	0.3	0.3	100.0	11,882
No	95.1	3.9	0.4	0.6	100.0	1,801
Currently pregnant						
Pregnant	96.8	3.2	0.0	0.1	100.0	1,109
Not pregnant or not sure	96.1	3.2	0.4	0.3	100.0	12,574
Times slept away from home in past 12 months						
None	96.3	3.0	0.3	0.4	100.0	8,310
1-2	96.4	3.1	0.4	0.2	100.0	3,600
3-4	96.0	3.4	0.2	0.4	100.0	1,025
5+	93.2	5.7	0.9	0.1	100.0	748
Time away in past 12 months						
Away for more than 1 month at a time	95.9	3.5	0.4	0.1	100.0	1,832
Away only for less than 1 month at a time	95.8	3.5	0.4	0.3	100.0	3,541
No time away	96.3	3.0	0.3	0.4	100.0	8,310
Religion						
Catholic	95.5	3.5	0.6	0.3	100.0	2,351
Protestant	96.3	3.1	0.3	0.3	100.0	11,138
Muslim	95.1	4.9	0.0	0.0	100.0	61
Other	96.2	3.8	0.0	0.0	100.0	133
Total	96.1	3.2	0.3	0.3	100.0	13,683

[1] Includes all Dried Blood Samples (DBS) specimens tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate.
[2] Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) non-corresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.8 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Zambia DHS 2018

	HIV test status					
Characteristic	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]	Total	Number
Marital status						
Never married	95.6	2.8	1.2	0.4	100.0	5,129
Ever had sexual intercourse	95.8	2.9	1.1	0.3	100.0	3,329
Never had sexual intercourse	95.3	2.6	1.3	0.7	100.0	1,800
Married/living together	94.7	3.9	1.1	0.3	100.0	5,534
Divorced or separated	95.8	3.0	1.0	0.2	100.0	404
Widowed	97.3	0.0	2.7	0.0	100.0	37
Type of union						
In polygynous union	94.2	5.5	0.4	0.0	100.0	274
In non-polygynous union	94.7	3.8	1.1	0.3	100.0	5,260
Not currently in union	95.7	2.8	1.1	0.4	100.0	5,570
Ever had sexual intercourse						
Yes	95.2	3.5	1.1	0.3	100.0	9,304
No	95.3	2.6	1.3	0.7	100.0	1,800
Circumcised						
Yes	94.7	3.4	1.4	0.6	100.0	3,636
No	95.4	3.3	1.0	0.2	100.0	7,460
Don't know/missing	100.0	0.0	0.0	0.0	100.0	8
Times slept away from home in past 12 months						
None	95.3	3.1	1.2	0.4	100.0	6,115
1-2	95.3	3.4	1.0	0.3	100.0	2,766
3-4	94.5	4.2	1.1	0.2	100.0	1,155
5+	95.1	3.3	1.1	0.5	100.0	1,068
Time away in past 12 months						
Away for more than 1 month at a time	95.0	3.5	1.1	0.5	100.0	1,545
Away only for less than 1 month at a time	95.1	3.6	1.0	0.2	100.0	3,444
No time away	95.3	3.1	1.2	0.4	100.0	6,115
Religion						
Catholic	94.9	3.1	1.7	0.3	100.0	2,048
Protestant	95.3	3.3	1.0	0.4	100.0	8,889
Muslim	96.3	3.7	0.0	0.0	100.0	54
Other	90.3	8.8	0.9	0.0	100.0	113
Total 15-49	95.2	3.3	1.1	0.4	100.0	11,104
50-59	95.1	3.8	0.8	0.3	100.0	1,028
Total 15-59	95.2	3.4	1.1	0.3	100.0	12,132

[1] Includes all Dried Blood Spot (DBS) specimens tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate.
[2] Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) non-corresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.9 Coverage of HIV testing by sexual behaviour characteristics: Women

Percent distribution of interviewed women age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Zambia DHS 2018

Sexual behaviour characteristic	HIV test status				Total	Number
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Age at first sexual intercourse						
<16	97.0	2.5	0.3	0.2	100.0	4,940
16-17	96.4	3.2	0.2	0.1	100.0	3,659
18-19	96.0	3.1	0.4	0.6	100.0	1,924
20+	93.6	4.9	0.7	0.8	100.0	1,156
Missing	94.6	4.9	0.0	0.5	100.0	203
Number of lifetime partners						
1	95.9	3.4	0.3	0.4	100.0	4,645
2	96.7	2.7	0.4	0.2	100.0	3,671
3-4	96.3	3.2	0.3	0.2	100.0	2,892
5-9	96.8	2.3	0.5	0.4	100.0	554
10+	97.7	2.3	0.0	0.0	100.0	88
Missing	90.6	9.4	0.0	0.0	100.0	32
Multiple sexual partners in past 12 months						
0	95.0	4.2	0.5	0.3	100.0	1,645
1	96.5	2.9	0.3	0.3	100.0	10,032
2+	97.1	1.5	0.0	1.5	100.0	204
Don't know/missing	100.0	0.0	0.0	0.0	100.0	1
Nonmarital, noncohabiting partners in past 12 months[3]						
0	96.2	3.2	0.3	0.2	100.0	9,274
1	96.5	2.7	0.4	0.4	100.0	2,463
2+	96.6	2.1	0.0	1.4	100.0	145
Condom use at last sexual intercourse in past 12 months						
Used condom	95.6	3.6	0.2	0.6	100.0	1,406
Did not use condom	96.7	2.8	0.3	0.2	100.0	8,831
No sexual intercourse in past 12 months	95.0	4.2	0.5	0.3	100.0	1,645
Condom use at last sexual intercourse with a nonmarital, noncohabiting partner in past 12 months[3]						
Used condom	95.3	3.6	0.3	0.8	100.0	899
Did not use condom	97.1	2.2	0.5	0.2	100.0	1,709
No sexual intercourse with any nonmarital, noncohabiting partners in past 12 months[3]	96.2	3.2	0.3	0.2	100.0	9,274
Prior HIV testing						
Ever tested	96.5	2.9	0.3	0.3	100.0	10,970
Received results	96.5	2.9	0.3	0.3	100.0	10,808
Did not receive results	98.1	1.9	0.0	0.0	100.0	162
Never tested	93.9	5.3	0.7	0.2	100.0	912
Total	96.3	3.1	0.3	0.3	100.0	11,882

[1] Includes all Dried Blood (DBS) specimens tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate.
[2] Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) non-corresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.
[3] Any partner who was not a spouse and did not live with the respondent

Table A.10 Coverage of HIV testing by sexual behaviour characteristics: Men

Percent distribution of interviewed men age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Zambia DHS 2018

Sexual behaviour characteristic	HIV test status				Total	Number
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Age at first sexual intercourse						
<16	95.4	3.4	1.1	0.1	100.0	2,864
16-17	95.4	3.5	1.0	0.1	100.0	2,141
18-19	95.8	2.5	1.3	0.4	100.0	2,014
20+	94.2	4.4	0.9	0.6	100.0	2,193
Missing	92.4	4.3	3.3	0.0	100.0	92
Number of lifetime partners						
1	95.4	3.7	0.7	0.2	100.0	1,076
2	94.4	3.8	1.5	0.3	100.0	1,436
3-4	95.0	3.6	1.0	0.4	100.0	2,682
5-9	95.9	2.8	1.0	0.2	100.0	2,511
10+	95.4	3.3	1.1	0.2	100.0	1,500
Missing	85.9	12.1	2.0	0.0	100.0	99
Multiple sexual partners in past 12 months						
0	94.4	4.0	1.1	0.5	100.0	997
1	95.2	3.5	1.1	0.3	100.0	6,659
2+	95.6	3.0	1.2	0.2	100.0	1,647
Don't know/missing	100.0	0.0	0.0	0.0	100.0	1
Nonmarital, noncohabiting partners in past 12 months[3]						
0	94.5	4.0	1.2	0.3	100.0	5,689
1	96.5	2.4	0.8	0.3	100.0	2,940
2+	94.5	3.6	1.8	0.1	100.0	675
Condom use at last sexual intercourse in past 12 months						
Used condom	95.2	3.6	1.0	0.3	100.0	2,096
Did not use condom	95.3	3.4	1.1	0.2	100.0	6,211
No sexual intercourse in past 12 months	94.4	4.0	1.1	0.5	100.0	997
Condom use at last sexual intercourse with a nonmarital, noncohabiting partner in past 12 months[3]						
Used condom	96.0	2.9	0.9	0.3	100.0	1,912
Did not use condom	96.5	2.2	1.1	0.2	100.0	1,695
No sexual intercourse with any nonmarital, noncohabiting partners in past 12 months[3]	94.5	4.1	1.2	0.3	100.0	5,697
Paid for sexual intercourse in past 12 months						
Yes	95.7	2.6	1.4	0.3	100.0	646
Used condom	94.8	3.5	1.5	0.3	100.0	344
Did not use condom	96.7	1.7	1.3	0.3	100.0	302
No (no paid sexual intercourse/ no sexual intercourse in last 12 months)	95.1	3.5	1.1	0.3	100.0	8,658
Prior HIV testing						
Ever tested	95.2	3.4	1.1	0.3	100.0	7,696
Received results	95.2	3.4	1.0	0.3	100.0	7,489
Did not receive results	94.2	3.9	1.9	0.0	100.0	207
Never tested	95.0	3.7	1.2	0.2	100.0	1,608
Total 15-49	95.2	3.5	1.1	0.3	100.0	9,304
50-59	95.1	3.8	0.8	0.3	100.0	1,025
Total 15-59	95.1	3.5	1.1	0.3	100.0	10,329

[1] Includes all Dried Blood (DBS) specimens tested at the lab and for which there is a result, i.e., positive, negative, or inconclusive.
[2] Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) non-corresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.
[3] Any partner who was not a spouse and did not live with the respondent