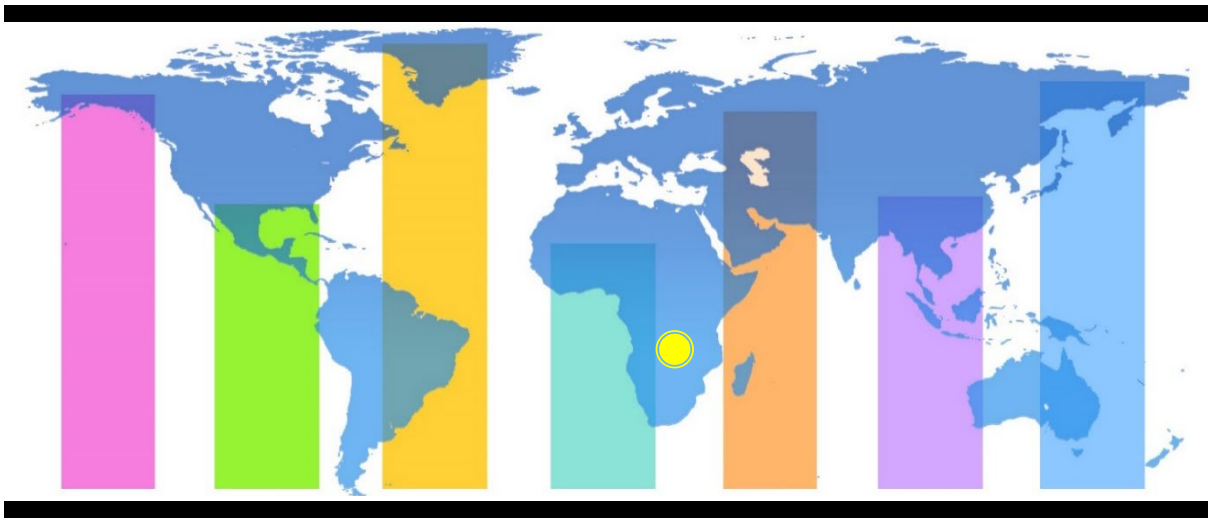
ZAMBIA



Demographic and Health Survey 2024

Key Indicators Report

Zambia
Demographic and Health Survey
2024

Key Indicators Report

Zambia Statistics Agency
Lusaka, Zambia

Ministry of Health
Lusaka, Zambia

University Teaching Hospital Virology Laboratory
Lusaka, Zambia

The DHS Program
ICF
Rockville, Maryland, USA

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The 2024 Zambia Demographic and Health Survey (2024 ZDHS) was implemented by the Zambia Statistics Agency in partnership with the Ministry of Health, the University Teaching Hospital Virology Laboratory (UTH-VL) and Tropical Diseases Research Centre (TDRC), and the Department of Demography, Population Sciences, Monitoring and Evaluation at the University of Zambia (UNZA) under the overall guidance of the national steering committee. The funding for the 2024 ZDHS was provided by the Government of Zambia; the United States Agency for International Development (USAID); The Global Fund to Fight AIDS, Tuberculosis and Malaria (The Global Fund); and the United Nations Children's Fund (UNICEF). The United Nations Population Fund (UNFPA), the World Health Organization, and Johns Hopkins University provided technical and financial assistance for measles testing. ICF provided technical assistance through The DHS Program, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide.

Additional information about the 2024 ZDHS may be obtained from the Zambia Statistics Agency, P.O. Box 31908, Lusaka, Zambia; telephone: (260-211) 251377/85 257604/05; fax: (260-211) 253468; email: info@zamstats.gov.zm; internet: www.zamstats.gov.zm; data portal: http://zambia.opendataforafrica.org/. Information about The DHS Program may be obtained from ICF, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA; telephone: +1-301-407-6500; fax: +1-301-407-6501; email: info@DHSprogram.com; internet: www.DHSprogram.com.

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ACRONYMS AND ABBREVIATIONS

ACT	artemisinin-based combination therapy
ANC	antenatal care
ARI	acute respiratory infection
ASFR	age-specific fertility rate
BCG	bacille Calmette-Guérin
CAPI	computer-assisted personal interviewing
CBR	crude birth rate
CPH	Census of Population and Housing
CSPro	Census and Survey Processing System
DBS	dried blood spot
DHS	Demographic and Health Survey
DPT	diphtheria, pertussis, and tetanus
EA	enumeration area
GFR	general fertility rate
HepB	hepatitis B
Hib	*Haemophilus influenzae* type b
HIV	human immunodeficiency virus
HPV	human papillomavirus
IFSS	Internet File Streaming System
IPTp	intermittent preventive treatment during pregnancy
IPV	inactivated poliomyelitis vaccine
IRB	institutional review board
IT	information technology
ITN	insecticide-treated net
IUCD	intrauterine contraceptive device
IYCF	infant and young child feeding
LAM	lactational amenorrhoea method
LLIN	long-lasting insecticidal net
MMR	measles, mumps, and rubella
MR	measles-rubella
OPV	oral polio vaccine
ORS	oral rehydration salts
PCV	pneumococcal conjugate vaccine
PNC	postnatal care
PRMR	pregnancy-related mortality ratio
RDT	rapid diagnostic test
RV	rotavirus vaccine
SD	standard deviation
SDG	Sustainable Development Goal
SDM	standard days method
SP	sulfadoxine-pyrimethamine
STI	sexually transmitted infection
TFR	total fertility rate

UNZA	University of Zambia
USAID	United States Agency for International Development
WHO	World Health Organization
ZamStats	Zambia Statistics Agency
ZDHS	Zambia Demographic and Health Survey

FOREWORD

The Government of Zambia, through the Zambia Statistics Agency (ZamStats) and the Ministry of Health, successfully implemented the 2024 Zambia Demographic and Health Survey (2024 ZDHS). The implementation of the survey was supported by key stakeholders and cooperating partners through technical and financial assistance. The 2024 ZDHS provides critical data on selected demographic and health indicators necessary for programme managers, policymakers, and implementers to monitor and evaluate the impact of existing policies and programmes and to design new initiatives for health in Zambia. Specifically, it is designed to provide up-to-date information on health indicators including fertility levels, nuptiality, sexual activity, fertility preferences, awareness and use of family planning methods, breastfeeding practices, nutritional status of mothers and children, early childhood mortality and maternal mortality, maternal and child health, awareness and behaviours regarding HIV/AIDS and other sexually transmitted infections, and prevalence of HIV.

This report presents the preliminary results of the 2024 Zambia Demographic and Health Survey (ZDHS). The 2024 ZDHS is the seventh Demographic and Health Survey conducted in Zambia, with preceding surveys conducted in 1992, 1996, 2001–02, 2007, 2013–14, and 2018. The Zambia Statistics Agency wishes to express its profound gratitude and appreciation to those involved in the implementation of the 2024 ZDHS through financial and technical support and the preparation of this Key Indicators Report.

Particular thanks go to the following for facilitating the successful implementation of the survey:

- The U.S. Agency for International Development (USAID) in Zambia, for providing the financial support for conducting the 2024 ZDHS
- ICF, for providing technical assistance through The Demographic and Health Surveys Program (DHS) in key survey processes including survey preparation, training of fieldwork staff, data processing, and data analyses
- The Global Fund to Fight AIDS, Tuberculosis and Malaria (The Global Fund); the United Nations Population Fund (UNFPA); the United Nations Children's Fund (UNICEF); the World Health Organization (WHO) in Zambia; and Johns Hopkins University, for providing additional funds
- The University Teaching Hospital Virology Laboratory and Tropical Diseases Research Centre (TDRC), for providing technical support in the implementation of biomarker collection and HIV testing
- The University of Zambia (UNZA) Department of Demography, Population Sciences, Monitoring and Evaluation, for providing support in training of field staff and monitoring of fieldwork for quality assurance

The survey would not have been possible without the diligence and dedication of the project staff at different levels. In particular, we wish to express our appreciation to the project coordination team, provincial coordinators, supervisors, interviewers, biomarker technicians, and drivers for their active participation in and contribution to this work.

Above all, we appreciate the cooperation of all of the survey respondents countrywide for contributing to the successful accomplishment of the 2024 ZDHS.

Sheila S. Mudenda
Acting Statistician General

1 INTRODUCTION

The 2024 Zambia Demographic and Health Survey (2024 ZDHS) was implemented by the Zambia Statistics Agency (ZamStats) in partnership with the Ministry of Health (MoH), the University Teaching Hospital Virology Laboratory (UTH-VL), the Tropical Diseases Research Centre (TDRC), and the Department of Demography, Population Sciences, Monitoring and Evaluation at the University of Zambia (UNZA) under the overall guidance of the national steering committee. Data collection took place from 17 January to 7 July 2024. ICF provided technical assistance through The Demographic and Health Surveys Program (DHS), which is funded by the United States Agency for International Development (USAID) and offers financial support and technical assistance for population and health surveys in countries worldwide. Other agencies and organisations that facilitated the successful implementation of the survey through technical or financial support were the Government of Zambia; The Global Fund to Fight AIDS, Tuberculosis and Malaria (The Global Fund); the United Nations Children's Fund (UNICEF); the United Nations Population Fund (UNFPA); the World Health Organization (WHO); and Johns Hopkins University.

This Key Indicators Report presents preliminary selected findings from the 2024 ZDHS. A comprehensive analysis of the data will be presented in a final report in 2025.

The primary objective of the 2024 ZDHS is to provide up-to-date estimates of basic demographic and health indicators as well as indicators related to the Sustainable Development Goals (SDGs). Specifically, the ZDHS collected information on:

- Fertility levels, fertility preferences, and contraceptive use
- Maternal health, including antenatal and delivery care and maternal mortality
- Child mortality and child heath, including childhood diseases and vaccination coverage
- Nutritional status of children under age 5 and women age 15–49 (via weight and height measurements)
- Anaemia prevalence among children age 6–59 months and women age 15–49
- Availability of, access to, and use of insecticide-treated nets (ITNs)
- Awareness of HIV and behavioural risk factors
- HIV prevalence among men age 15–59, women age 15–49, and children age 2–14
- Gender-based violence

The information collected through the 2024 ZDHS is intended to assist policymakers and programme managers in designing and evaluating programmes and strategies for improving the health of Zambia's population.

2 SURVEY IMPLEMENTATION

2.1 SAMPLE DESIGN

The sampling frame used for the 2024 ZDHS was based on the 2022 Census of Population and Housing of the Republic of Zambia (2022 CPH), conducted by the Zambia Statistics Agency. Zambia is administratively divided into 10 provinces, with each province subdivided into districts, each district into constituencies, and each constituency into wards. There are in total 116 districts, 156 constituencies, and 1,858 wards. In addition to these administrative units, during the 2022 CPH each ward was subdivided into enumeration areas (EA) that served as counting units for the population census. There are in total 36,770 EAs. EAs are classified into two types, urban EAs and rural EAs. Among the 36,770 EAs, 13,273 are urban and 23,497 are rural. Each EA has two measures of size, the size of the population and the number of households in the EA. The average EA size is 111 households; urban EAs are larger on average than rural EAs (143 households and 93 households, respectively).

The 2024 ZDHS sample was stratified and selected in two stages. The first stage involved selecting sample points (clusters) consisting of EAs. Each province was stratified into urban and rural areas yielding 20 sampling strata in total. EAs were selected with a probability proportional to their size within each sampling stratum. A total of 545 clusters were selected.

The second stage involved systematic sampling of households. A household listing exercise was undertaken in all of the selected clusters. During the listing, an average of 111 households were found in each cluster, from which a fixed number of 25 households were selected through an equal probability systematic selection process, to obtain a total sample size of 13,625 households. Results from this sample are representative at the national, urban and rural, and provincial levels.

All women age 15–49 and men age 15–59 who were either permanent residents of the selected households or were visitors who stayed in the households the night before the survey were eligible to be interviewed.

2.2 QUESTIONNAIRES

Four questionnaires were used for the 2024 ZDHS: the Household Questionnaire, the Woman's Questionnaire, the Man's Questionnaire, and the Biomarker Questionnaire. The questionnaires, based on The DHS Program's model questionnaires, were adapted to reflect the population and health issues relevant to Zambia. In addition, a self-administered Fieldworker Questionnaire collected information about the survey's fieldworkers. The Household, Man's, and Woman's Questionnaires were administered in seven major languages: English, Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, and Tonga.

The Household Questionnaire listed all members of and visitors to the selected households. Basic demographic information was collected on each person listed, including age, sex, marital status, education, and relationship to the head of the household. For each person age 5 and older, information on disability was collected. For children under age 18, parents' survival status was determined. The data on age and sex of household members were used to identify women and men who were eligible for individual interviews. The Household Questionnaire also collected information on characteristics of the household's dwelling unit such as source of water; type of toilet facilities; materials used for flooring, external walls, and roofing; ownership of various household goods; and ownership and use of mosquito nets. In addition, all households were eligible to have their salt tested for the presence of iodine.

The Woman's Questionnaire was used to collect information from all eligible women age 15–49. These women were asked questions on the following topics:

- Background characteristics (including age, education, and media exposure)
- Reproduction and child mortality
- Contraception

- Antenatal, delivery, and postnatal care
- Vaccinations and childhood illnesses
- Maternal and child health and nutrition
- Marriage and sexual activity
- Fertility preferences
- Women's work and husbands' background characteristics
- Knowledge, awareness, and behaviour regarding HIV/AIDS and other sexually transmitted infections (STIs)
- Other health issues and chronic diseases (including hypertension and diabetes)
- Fistula
- Mental health and well-being
- Adult mortality, including maternal mortality
- Domestic violence
- Women's empowerment

The Man's Questionnaire was administered to men age 15–59. The questionnaire collected information on:

- Background characteristics
- Reproduction
- Contraception
- Marriage and sexual activity
- Fertility preferences
- Employment and gender roles
- Knowledge, awareness, and behaviour regarding HIV/AIDS and other STIs
- Other health issues and chronic diseases (including hypertension and diabetes)
- Mental health and well-being

The Biomarker Questionnaire was used to record the results of anthropometry (height and weight) measurements and haemoglobin and field-based HIV testing for eligible respondents. In addition, the questionnaire was used to record information on specimen collection for lab-based HIV testing for eligible women, men, and children and lab-based testing of antibodies to measles among children.

The Fieldworker Questionnaire collects data on the basic characteristics of fieldworkers and can serve as a tool in conducting analyses of data quality. Fieldworkers filled out a two-page self-administered questionnaire on their general background characteristics. ZamStats distributed and collected this questionnaire before the fieldworkers entered the field. No personal identifiers were attached to the ZDHS fieldworkers' data files.

The Household, Woman's, and Man's Questionnaires were programmed into tablet computers to facilitate computer-assisted personal interviewing (CAPI) for data collection purposes, with the capability to choose any of the eight specified languages for each questionnaire. The Biomarker Questionnaire was completed on paper during data collection and then entered into the CAPI system in the field before the data collection teams completed each cluster.

The protocols for survey methodology, biomarker measurements and testing, and all instruments were approved by institutional review boards (IRBs) at ICF and the Tropical Diseases Research Centre (TDRC) and National Health Research Authority in Zambia. The IRBs approved the protocols before the commencement of data collection activities.

2.3 ANTHROPOMETRY, ANAEMIA, MEASLES SEROLOGY, AND HIV TESTING

Anthropometry. In half of all selected households, height and weight measurements were recorded for children age 0–59 months and women age 15–49 (**Figure 1**). Weight measurements were taken using SECA scales with a digital display (model number SECA 878U). Height and length were measured with a

ShorrBoard® measuring board. Children younger than age 24 months were measured lying down (recumbent length), while older children and adults were measured standing (height).

To assess the precision of measurements, at least one child per cluster was randomly selected to be measured a second time. The DHS Program defines a difference of less than 1 centimetre between the two height measurements as an acceptable level of precision. Children with a *z* score of less than −3 or more than 3 for height-for-age, weight-for-height, or weight-for-age were flagged and measured a second time. The remeasurement of flagged cases was performed to ensure accurate reporting of height.

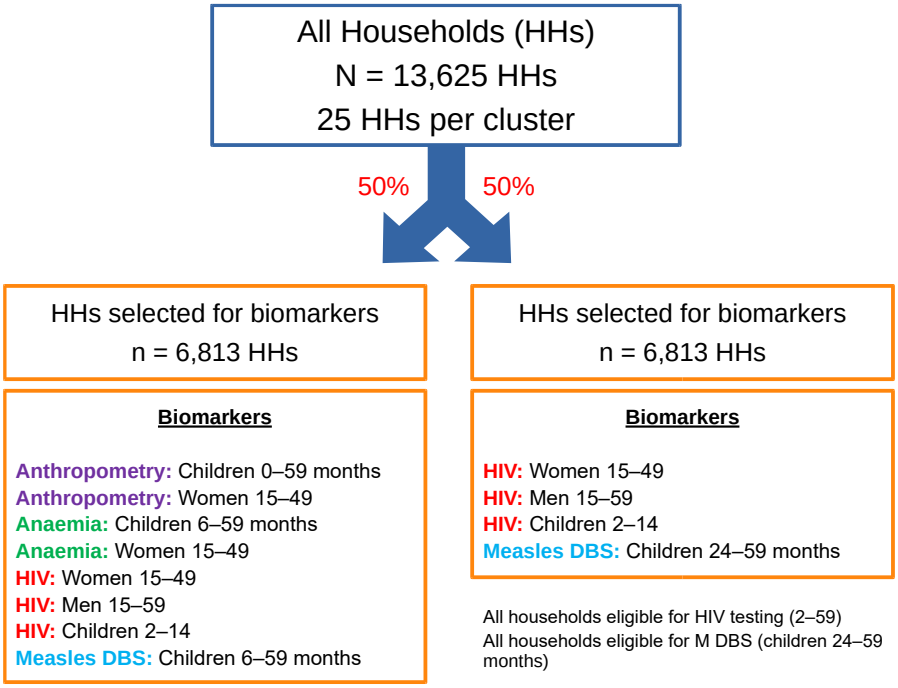
For children, anthropometric data are used to calculate three indices that reflect nutritional status: height-for-age, weight-for-height, and weight-for-age. In presenting the anthropometric results, the height and weight of children in the survey population were compared with the 2006 WHO Child Growth Standards, which are based on an international sample of ethnically, culturally, and genetically diverse, healthy children living under optimum conditions conducive to achieving a child's full genetic growth potential (WHO 2006b). Children who were severely malnourished were referred to a local health facility for assessment and treatment. Biomarker technicians provided all households in the biomarker subsample with an informational pamphlet containing the height and weight of all eligible children and adults.

Anaemia. In the same half of households selected for anthropometry measurements, blood specimens for anaemia testing were collected from women age 15–49 who consented to be tested. Blood specimens were also collected from children age 6–59 months whose parents or guardians had given consent to the testing. Blood samples were drawn from a drop of blood taken from a finger prick (or a heel prick in the case of children age 6–11 months) and collected in a microcuvette. Haemoglobin analysis was carried out on-site using a battery-operated portable HemoCue® 201+ device. Results were provided verbally and in writing to those tested. Parents or guardians of children with a haemoglobin level below 8 g/dl were provided with a referral and instructed to take the child to a health facility for follow-up care. Likewise, women were referred for follow-up care if their haemoglobin levels were below 8 g/dl. Anaemia results will be presented in the final report.

HIV testing. In each household, all children age 2–14, women age 15–49, and men age 15–59 were eligible for two types of HIV testing. For respondents who wished to be informed of their status, a rapid diagnostic testing algorithm was performed. Respondents were also asked to consent to anonymous testing of samples by a central lab. For the latter respondents, dried blood spot (DBS) specimens were collected and transported to University Teaching Hospital Virology Laboratory (UTH-VL) for storage and testing. HIV prevalence for the survey will be based on the laboratory test results. Laboratory testing is ongoing, and thus data will be included only in the final report.

The national rapid diagnostic testing algorithm in Zambia at the time of the 2024 ZDHS implementation consisted of an initial screening rapid test (Determine® HIV 1/2) followed by confirmation of reactive specimens with a second rapid test (Bioline™ HIV 1/2 3.0).

Figure 1 **Subsample breakdown**



To test respondents via rapid diagnostic tests (RDTs), a blood sample was collected directly from a finger prick using a sample collection tube supplied with both test kits. Dedicated nurse counsellors who provided pretest and posttest counselling conducted the HIV rapid testing. Pretest counselling included explanations of HIV infection and transmission, the interpretation of test results, risks associated with sexual behaviours, and how to prevent and treat HIV and other sexually transmitted infections. Posttest counselling messages were tailored to participants' HIV results and risk profiles. Testing and delivery of results in the household were done only after ensuring conditions that would guarantee the confidentiality of respondents. All participants with HIV-seropositive or indeterminate results were referred to the nearest health facility for further testing, care, and treatment.

For the purpose of tracking DBS samples, at the time of collection a unique alphanumeric barcode was assigned to each participant who consented to testing. A yellow circular HIV cryogenic label was utilised on the DBS card indicating that it should be tested for HIV in the laboratory, differentiating samples that would be tested for measles antibodies. Sheets of peel-off cryogenic labels with the unique barcodes were preprinted for use in the field. Matching alphanumeric barcode labels were affixed to the Biomarker Questionnaire, a Whatman 903 filter paper card, and a DBS transmittal sheet. Respondents were also asked whether they would consent to having the laboratory store their blood sample for future testing. If respondents did not consent to additional testing of their blood sample in the future, their refusal was recorded on the Biomarker Questionnaire and on the filter paper card.

DBS cards containing blood samples were placed in a portable drying rack and left to dry overnight. Once blood spots had dried sufficiently, each DBS card was packaged in a gas permeable bag along with a colorimetric desiccant and humidity indicator card. All samples from each cluster were packaged in a cluster zip-loc bag along with a corresponding transmittal sheet. At least monthly, all DBS samples and transmittal sheets from completed clusters were collected from teams in the field by fieldwork monitors or provincial coordinators and transported to UTH-VL for registration and processing. Each specimen was then assigned a unique serial laboratory number during the registration process at the laboratory before being stored in a freezer at a temperature of at least −20°C. Before samples were tested, all personal identifiers were removed from the data file.

Children age 2–9 required parental/responsible adult consent for HIV RDT and/or laboratory testing to proceed. The results were then provided to the consenting adult. Children age 10–14 and adolescents age 15–17 required both minor/adolescent assent and parental/responsible adult consent in order for HIV RDT and/or laboratory testing to proceed. For children age 10–14, the results were provided to the assenting child and/or the consenting adult. For adolescents age 15–17, the results were given only to the assenting adolescent.

Measles serology. The 2024 ZDHS tested DBS for the presence of measles antibodies in children age 6–59 months in the 50% of households that were also selected for anthropometry and anaemia testing. In the remaining 50% of the selected households, children age 24–59 months were eligible for measles serology. In these 50% of households, children age 24–59 months were also eligible for lab-based HIV testing. A single filter paper card with blood specimens was used to test for both HIV and measles serology if the parent or guardian consented to both tests. For children who were not eligible for HIV testing but whose parent or guardian consented to measles serology testing, a DBS card was prepared following the same procedures described above except that in the case of children age 6–11 months, blood was collected from a heel prick.

To assist in identifying DBS specimens for children for whom consent to both tests had been obtained, an HIV sticker and an M sticker were placed on the card. If a child was eligible only for measles serology or if the parent or guardian consented only to measles serology testing for the child, only an M sticker was affixed to the DBS card, indicating that the card should be tested only for measles antibodies in the laboratory.

Once the specimens were transported to the UTH laboratory where all testing would take place, they were assigned unique serial laboratory numbers during the registration process at the laboratory before being stored in a freezer at a temperature of at least −20°C. Measles testing was conducted concurrently with data collection. Measles serology data will be included in the final report.

2.4 PRETEST

The classroom portion of the pretest training was held between 21 August and 12 September 2023 at the Four Pillars Lodge in Chilanga, Lusaka Province. The MoH, in coordination with ZamStats, recruited 24 individuals to serve as interviewers (12 men, 12 women) and 16 individuals to serve as biomarker technicians (nine women, seven men). Both biomarker technicians and interviewers attended the first week of interviewer training. On 29 August 2023, interviewers and biomarker technicians were split into two separate rooms to continue with their respective training. The interviewer training focused on questionnaire content, general interviewing techniques, computer-aided interviewing techniques, and fieldwork procedures, while the biomarker training focused on anthropometry measurement and the various blood collection and testing procedures. Both the interviewer and the biomarker training utilised a variety of different learning tools such as formal lectures, informal discussions on various practice scenarios, videos, and hands-on demonstrations.

Anthropometry standardisation was conducted on 2 September 2023 at ZamStats headquarters. The standardisation exercise is a quantitative method utilized by biomarker trainers to assess whether biomarker technicians are able to measure height accurately and precisely after completing anthropometry training. Each technician measures 10 children in a controlled, exam-like setting. The technicians' measurements are then compared to those of a gold-standard trainer who has been previously standardised. If technicians do not meet the acceptable threshold, they will undergo retraining and must pass restandardisation before being deployed in the field.

Of the 16 trainees, 15 were standardised successfully. Restandardisation was not required, as only eight standardised measurers were needed for field practice, with the second biomarker technician serving as an assistant for anthropometry.

A clinic visit was conducted at Chilanga Health Centre on 8 September 2023 in order for trainees to conduct all biomarker collection procedures with children and willing adult volunteers prior to field practice.

Field practice was conducted from 13 to 16 September 2023. Four clusters were identified (two urban and two rural), and each team was assigned a cluster consisting of 25 households that the team would interview over the course of 4 days. Convenience sampling was used, and the teams selected households based on the language spoken, so that they would have the opportunity to test the translations, and on household composition, in order to gain experience interviewing and collecting biomarkers from individuals of different ages. Each team included a supervisor, three female interviewers, two male interviewers, and four biomarker technicians working in pairs.

2.5 TRAINING OF FIELD STAFF

The training of interviewers was held from 13 November to 10 December 2023. A total of 144 interviewers were recruited. There were three classrooms, with three to five ZamStats and UNZA facilitators overseeing each classroom. The training was led by staff from ZamStats and UNZA and backstopped by staff from ICF. Sessions discussed concepts, procedures, and methodologies related to conducting the survey, and participants were guided through the questionnaires both on paper and in CAPI. The training included presentations, lectures, hands-on exercises, mock interviews, role plays, group work, and quizzes. In addition, subject-matter specialists from the MoH were invited to make short presentations on programmes in Zambia that provide services in the areas of family planning and reproductive health, HIV/AIDS and other STIs, childhood immunisation, child health and nutrition, and human papillomavirus (HPV) and HPV vaccination. At the end of the training participants were grouped into 24 teams, each comprising one supervisor and five interviewers, with team composition based on the languages spoken and read by the participants. These teams were used for a mini-cluster simulation exercise as well as for field practice, further reinforcing the classroom learning.

Ninety-eight biomarker technicians were recruited to attend parallel training on biomarker procedures. The biomarker training took place from 22 November to 10 December 2023. This training was conducted by staff from UTH-VL, ICF, TDRC, and ZamStats. Biomarker training included classroom instruction and hands-on practice on anthropometry measurements, haemoglobin measurements, HIV testing with RDTs, and blood collection for lab-based HIV and measles serology testing. In addition, the training covered procedures for obtaining informed consent, recording information in the Biomarker Questionnaire, reporting test results back to respondents with referrals as needed, and providing pretest and posttest HIV counselling.

Forty-four standardised biomarker technicians were required for ZDHS fieldwork. The initial standardisation exercise took place on 27 November 2023. Out of 98 trainees, 60 were selected for standardisation based on their scores from the practice exercises. Forty-two of the 60 trainees passed, falling just short of the 44 required. Restandardisation was held on 5 December, and 21 out of 24 trainees passed. In total, 63 of the 98 trainees were successfully standardised.

A 4-day field practice exercise took place from 12 to 15 December 2023 in 24 clusters (clusters not selected for the main survey), half located in urban areas and half in rural areas. Each team was assigned a cluster from which it had to interview 25 households. Teams used convenience sampling to select households for interviews, prioritizing households with men, women, and children who were eligible for biomarker collection. All teams successfully closed their clusters. Overall, 596 households, 640 women, and 443 men were successfully interviewed during the field practice.

Throughout the training, each individual's performance was evaluated. Those who performed well were placed on teams as supervisors, interviewers, or biomarker technicians. The supervisors received additional training covering their roles and responsibilities, including how they should organise fieldwork, monitor interviews, and conduct quality control checks on both paper and CAPI questionnaires.

Due to delays in launching fieldwork, a 2-day refresher training session was conducted on 15 and 16 January 2024 in each of the 10 provinces prior to deployment of the data collectors.

2.6 FIELDWORK

Data collection was carried out from 17 January to 7 July 2024 by 22 teams, each composed of 12 members: one supervisor, three female interviewers, two male interviewers, four biomarker technicians, and two drivers. Fieldwork monitoring was a crucial part of the 2024 ZDHS. Senior technical staff from ZamStats; the Department of Demography, Population Sciences, Monitoring and Evaluation at the University of Zambia (UNZA); and UTH-VL regularly visited teams to review their work and monitor data quality.

ZamStats organised three groups of fieldwork monitors:

1. **Provincial coordinators:** Ten coordinators, each responsible for supervising teams in one province. Their assignments shifted with different visits to ensure comprehensive coverage and to balance the strengths of the monitors across provinces. They helped teams resolve any issues that arose in accessing clusters or while conducting their work, and they supported the technical work of the interviewers.

2. **Biomarker monitors:** Ten monitors, each overseeing biomarker technicians in one province. Biomarker monitors also rotated across provinces and observed biomarker technician consent and testing procedures using the technical checklists provided.

3. **IT staff:** Four information technology (IT) staff members deployed as needed to resolve CAPI-related issues.

Additionally, two staff members from The DHS Program independently visited teams to monitor data and biomarker collection. One local DHS Program staff member also served as a rotating field monitor for ZamStats. During field visits, monitors provided critical feedback to improve team performance. They used ZDHS field-check tables, based on data from completed clusters, to highlight specific issues for each team.

2.7 DATA PROCESSING

The survey data were collected using tablet computers running the Android operating system and Census and Survey Processing System (CSPro) software, jointly developed by the United States Census Bureau, ICF, and Serpro S.A.

The CAPI programme was used for data collection. The programme accepted only valid responses, automatically performed checks on ranges of values, skipped to the appropriate question based on the responses given, and checked the consistency of the data collected. Answers to the survey questions were entered into the tablets by each interviewer. Supervisors downloaded interview data from interviewers' tablets to their tablet via Bluetooth, checked the data for completeness, and monitored fieldwork progress. Each day, after completion of interviews, field supervisors submitted data to the central server. Data were sent to the central office via secure internet data transfer. The data processing monitors monitored the quality of the data received and downloaded completed data files for completed clusters into the system. ICF provided the CSPro software for data processing and offered technical assistance in the preparation of the data capture, data management, and data editing programmes. Secondary editing was conducted simultaneously with data collection and was completed following data collection on 28 August 2024. Technical support for data processing was provided by ICF.

3 KEY FINDINGS

3.1 RESPONSE RATES

Table 1 presents the response rates for the 2024 ZDHS. A total of 13,625 households were selected for the ZDHS sample, of which 12,877 were found to be occupied. Of the occupied households, 12,808 were successfully interviewed, yielding a response rate of almost 100%. In the interviewed households, 14,362 women age 15–49 were identified as eligible for individual interviews. Interviews were completed with 13,951 women, yielding a response rate of 97%. Also, 13,424 men age 15–59 in the interviewed households were identified as eligible for individual interviews and 12,585 were successfully interviewed, yielding a response rate of 94%.

Table 1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Zambia DHS 2024

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	5,500	8,125	13,625
Households occupied	5,262	7,615	12,877
Households interviewed	5,236	7,572	12,808
Household response rate[1]	99.5	99.4	99.5
Interviews with women age 15–49			
Number of eligible women	6,322	8,040	14,362
Number of eligible women interviewed	6,127	7,824	13,951
Eligible women response rate[2]	96.9	97.3	97.1
Interviews with men age 15–59			
Number of eligible men	5,345	8,079	13,424
Number of eligible men interviewed	4,906	7,679	12,585
Eligible men response rate[2]	91.8	95.0	93.8

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

3.2 CHARACTERISTICS OF RESPONDENTS

Table 2 presents the weighted and unweighted numbers and percent distributions of women and men interviewed in the 2024 ZDHS by selected background characteristics. The results presented in this report are based on weighted data that are representative of the country as a whole, urban and rural areas separately, and each of the 10 provinces.

- Reflecting the young age structure of Zambia's population, one in four respondents (24% of women and 26% of men) are age 15–19, the youngest age group.
- Eighty-six percent of women and 88% of men perceive their health status as either good or very good.
- Nearly half of men (48%) and one-third of women (34%) have never been married. A greater percentage of women are currently married than men (52% versus 47%). More women are divorced or separated (10%) than men (4%).
- Women are almost equally distributed between urban (51%) and rural (49%) areas, while a higher percentage of men live in rural areas (54%) than urban areas (47%).

Table 2 Background characteristics of respondents

Percent distribution of women and men age 15–49 by selected background characteristics, Zambia DHS 2024

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15–19	23.6	3,292	3,321	26.3	3,002	3,089
20–24	18.2	2,540	2,568	18.3	2,096	2,122
25–29	16.2	2,255	2,198	14.3	1,637	1,593
30–34	14.1	1,963	1,916	12.8	1,460	1,407
35–39	11.2	1,560	1,570	11.0	1,254	1,247
40–44	9.9	1,375	1,393	9.6	1,093	1,093
45–49	6.9	965	985	7.7	884	877
Self-reported health status						
Very good	35.3	4,922	5,148	45.9	5,250	5,017
Good	50.2	7,001	6,802	42.2	4,820	5,008
Moderate	12.6	1,756	1,736	10.5	1,202	1,229
Bad	1.7	240	232	1.1	125	143
Very bad	0.2	33	33	0.2	28	31
Religion						
Catholic	14.4	2,010	2,017	15.0	1,717	1,692
Protestant	84.9	11,846	11,841	83.2	9,503	9,541
Muslim	0.4	56	51	0.7	82	69
Other	0.3	40	42	1.1	125	126
Marital status						
Never married	33.9	4,732	4,628	48.1	5,498	5,471
Married	52.4	7,310	7,358	47.3	5,401	5,416
Living together	0.7	97	99	0.2	21	25
Divorced/separated	10.4	1,457	1,503	4.3	489	495
Widowed	2.5	355	363	0.2	18	21
Residence						
Urban	50.8	7,082	6,127	46.5	5,313	4,460
Rural	49.2	6,869	7,824	53.5	6,114	6,968
Province						
Central	11.3	1,578	1,625	12.1	1,385	1,451
Copperbelt	14.6	2,041	1,565	14.1	1,614	1,227
Eastern	11.7	1,628	1,570	12.9	1,477	1,398
Luapula	7.5	1,044	1,261	7.2	821	1,004
Lusaka	18.7	2,611	1,721	16.9	1,935	1,265
Muchinga	4.4	619	1,013	4.7	537	855
Northern	7.5	1,049	1,307	7.4	845	1,014
North Western	6.5	913	1,167	6.7	760	967
Southern	11.7	1,630	1,602	11.9	1,363	1,329
Western	6.0	838	1,120	6.0	688	918
Education						
No education	6.5	908	959	4.1	472	501
Primary	39.3	5,480	5,849	36.9	4,219	4,524
Secondary	46.5	6,485	6,189	50.0	5,708	5,517
Higher	7.7	1,079	954	9.0	1,027	886
Wealth quintile						
Lowest	17.4	2,434	2,829	17.9	2,050	2,397
Second	17.2	2,406	2,760	19.1	2,185	2,484
Middle	19.1	2,660	2,831	20.2	2,307	2,451
Fourth	22.3	3,118	2,778	21.2	2,426	2,098
Highest	23.9	3,332	2,753	21.5	2,457	1,998
Total 15–49	100.0	13,951	13,951	100.0	11,426	11,428
50–59	na	na	na	na	1,159	1,157
Total 15–59	na	na	na	na	12,585	12,585

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
na = not applicable

3.3 FERTILITY

Table 3 shows the total fertility rate (TFR) and age-specific fertility rates (ASFRs) among women by 5-year age groups for the 3-year period preceding the survey.

Total fertility rate

The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates. Age-specific fertility rates are calculated for the 3 years before the survey, based on detailed pregnancy histories provided by women.

Sample: Women age 15–49

- If fertility were to remain constant at current levels, a woman in Zambia would bear an average of 4.0 children in her lifetime.
- Fertility rises from 118 births per 1,000 women age 15–19 to a peak of 175 births per 1,000 among women age 25–29 and declines thereafter.
- Fertility is higher in rural areas (4.9 children per woman) than in urban areas (3.2 children per woman).

Table 3 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the 3 years preceding the survey, according to residence, Zambia DHS 2024

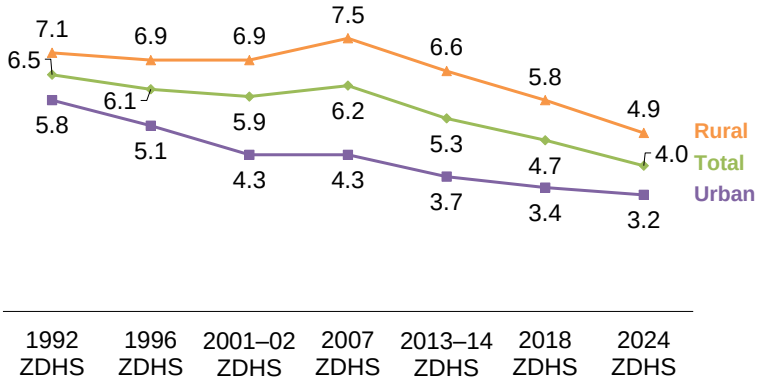
	Residence		
Age group	Urban	Rural	Total
10–14	[0]	[4]	[2]
15–19	73	162	118
20–24	120	231	174
25–29	152	202	175
30–34	138	177	156
35–39	114	138	126
40–44	39	65	52
45–49	[8]	[7]	[8]
TFR (15–49)	3.2	4.9	4.0
GFR	110	173	140
CBR	28.4	35.3	32.1

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates are for the period 1–36 months preceding the interview. Rates for the 10–14 age group are based on retrospective data from women age 15–17.
TFR: total fertility rate, expressed per woman
GFR: general fertility rate, expressed per 1,000 women age 15–44
CBR: crude birth rate, expressed per 1,000 population

Trends: Fertility rates declined from 1992 to 2024 in both urban and rural areas. The overall TFR has declined by 2.5 children since 1992 (from 6.5 to 4.0 children per woman) (**Figure 2**). The decline has been greater in urban areas, where fertility rates decreased from 5.8 in the 3 years preceding the 1992 survey to 3.2 in the 3 years preceding the 2024 survey. In rural areas, fertility declined from 7.1 in the 3 years preceding the 1992 survey to 4.9 in the 3 years preceding the 2024 survey. Between the 2018 and 2024 ZDHS surveys, the decline in the TFR was higher in rural areas (from 5.8 to 4.9 children per woman) than urban areas (3.4 to 3.2 children per woman).

Figure 2 **Trends in fertility by residence**

TFR for the 3 years before each survey



3.4 TEENAGE PREGNANCY

Reducing teenage pregnancy is important on both health and social grounds. Children born to very young mothers are at increased risk of sickness and death, and teenage mothers are more likely to experience adverse pregnancy outcomes.

Teenage pregnancy
Percentage of women age 15–19 who have ever been pregnant.
Sample: Women age 15–19

Table 4 shows the percentage of women age 15–19 who have had a live birth, who have ever had a pregnancy loss, who are currently pregnant, and who have ever been pregnant according to background characteristics.

- Twenty-eight percent of women age 15–19 have ever been pregnant.
- Twenty-one percent of young women have had a live birth.
- Two percent of young women reported that they ever had a pregnancy loss.
- Six percent of young women are currently pregnant.

Table 4 Teenage pregnancy

Percentage of women age 15–19 who have ever had a live birth, percentage who have ever had a pregnancy loss, percentage who are currently pregnant, and percentage who have ever been pregnant, according to background characteristics, Zambia DHS 2024

Background characteristic	Percentage of women age 15–19 who: Have ever had a live birth	Have ever had a pregnancy loss[1]	Are currently pregnant	Have ever been pregnant	Number of women
Age					
15	3.5	0.7	2.8	6.9	720
16	8.9	1.1	3.8	13.6	652
17	20.1	1.9	6.5	27.3	658
18	29.0	3.5	10.0	39.7	640
19	46.1	3.6	8.3	53.9	621
Residence					
Urban	13.2	1.9	4.4	18.6	1,621
Rural	28.4	2.3	8.0	36.2	1,671
Province					
Central	23.1	1.8	8.4	31.0	403
Copperbelt	14.1	1.0	3.2	17.5	457
Eastern	33.0	3.3	7.9	42.7	389
Luapula	16.3	0.9	6.7	23.3	258
Lusaka	10.6	3.0	3.5	16.3	550
Muchinga	25.7	3.8	9.5	33.5	142
Northern	20.9	0.4	8.1	28.1	251
North Western	25.2	1.7	7.4	32.7	227
Southern	27.2	2.8	5.3	32.9	400
Western	21.4	2.7	7.5	29.3	216
Education					
No education	34.7	1.1	7.6	42.7	100
Primary	26.9	2.7	7.8	34.8	1,298
Secondary	16.2	1.8	5.0	22.0	1,873
Higher	*	*	*	*	21
Wealth quintile					
Lowest	34.8	2.9	9.7	43.6	557
Second	26.4	2.2	8.6	34.8	569
Middle	27.5	2.2	6.9	35.4	685
Fourth	15.8	2.4	5.4	22.7	738
Highest	5.2	1.2	1.8	7.7	743
Total	20.9	2.1	6.2	27.6	3,292

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Stillbirth, miscarriage, or abortion

3.5 FERTILITY PREFERENCES

Information on fertility preferences is used to assess the potential demand for family planning services for the purpose of spacing or limiting future childbearing.

Desire for another child

Women were asked whether they wanted more children and, if so, how long they would prefer to wait before the birth of the next child. Women who are sterilised are assumed not to want any more children.

Sample: Currently married women age 15–49

Table 5 shows fertility preferences among currently married women age 15–49 by number of living children.

- Seventeen percent of women want another child soon (within the next 2 years), 39% want to have another child later (in 2 or more years), and 1% want another child but have not decided when.
- Thirty-three percent of women want no more children.
- The percentage of women who want no more children increases with number of living children, from 1% among those with no living children to 71% among those with six or more children.

Table 5 Fertility preferences by number of living children

Percent distribution of currently married women age 15–49 by desire for children, according to number of living children, Zambia DHS 2024

	Number of living children[1]							
Desire for children	0	1	2	3	4	5	6+	Total
Have another soon[2]	81.6	27.2	19.5	13.7	10.1	7.7	3.1	16.5
Have another later[3]	4.9	62.3	58.1	45.1	35.1	18.9	8.4	38.5
Have another, undecided when	2.4	1.0	1.0	1.3	0.7	0.9	0.6	1.0
Undecided	4.0	3.7	6.5	9.7	7.2	7.7	6.7	6.8
Want no more	0.7	4.2	12.3	26.6	42.1	60.3	71.4	32.7
Sterilised[4]	0.0	0.3	1.1	1.8	3.0	3.6	7.8	2.7
Declared infecund	6.4	1.3	1.4	1.7	1.9	0.8	2.0	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	267	1,204	1,415	1,347	1,141	821	1,212	7,407

[1] The number of living children includes a woman's current pregnancy.
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilisation

3.6 FAMILY PLANNING

Family planning refers to a conscious effort by individuals and couples to limit or space the number of children they have through the use of contraceptive methods. Contraceptive methods are classified as modern or traditional.

3.6.1 Contraceptive Use

Contraceptive prevalence

Percentage of women who use any contraceptive method.

Sample: Currently married women age 15–49 and sexually active unmarried women age 15–49

Modern methods

Include male and female sterilisation, injectables, intrauterine devices (IUCDs), contraceptive pills, implants, female and male condoms, emergency contraception, the standard days method, and the lactational amenorrhoea method.

Table 6 presents data on contraceptive use among currently married women and sexually active unmarried women.

- Contraceptive prevalence is 55% among currently married women and 50% among sexually active unmarried women.
- Fifty-three percent of currently married women use modern contraceptives, with injectables (28%), implants (11%), and pills (6%) being the most commonly used methods.
- Forty-eight percent of sexually active unmarried women use a modern contraceptive method; 23% use injectables, 9% use implants, and 8% use male condoms.

Table 6 Current use of contraception according to background characteristics

Percent distribution of currently married women and sexually active unmarried women age 15–49 by contraceptive method currently used, according to background characteristics, Zambia DHS 2024

Background characteristic	Any method	Any modern method	Modern method: Female sterilisation	IUCD	Injectables	Implants	Pill	Male condom	Emergency contraception	LAM	Other[1]	Traditional method: Any traditional method	Rhythm	Withdrawal	Other	Not currently using	Total	Number of women
CURRENTLY MARRIED WOMEN																		
Number of living children																		
0	5.8	5.2	0.0	0.0	2.7	0.3	0.3	1.5	0.0	0.0	0.4	0.7	0.3	0.3	0.0	94.2	100.0	398
1–2	53.1	50.9	0.7	0.5	31.9	9.9	4.7	2.1	0.2	0.7	0.1	2.1	1.0	1.1	0.0	46.9	100.0	2,623
3–4	61.9	58.4	2.4	1.0	30.1	12.2	7.3	3.2	0.2	1.9	0.2	3.4	1.1	2.1	0.3	38.1	100.0	2,425
5+	60.8	57.0	6.3	1.1	25.9	13.1	5.8	2.1	0.1	1.7	0.8	3.8	0.5	2.7	0.6	39.2	100.0	1,961
Age																		
15–19	43.8	42.4	0.0	0.2	31.3	8.1	1.0	1.0	0.0	0.9	0.0	1.3	0.5	0.8	0.0	56.2	100.0	442
20–24	54.0	52.1	0.0	0.2	34.8	11.4	2.8	1.3	0.1	1.5	0.1	1.9	0.5	1.5	0.0	46.0	100.0	1,235
25–29	58.4	56.1	0.3	0.7	33.9	11.8	5.3	2.2	0.2	1.5	0.1	2.3	1.0	1.1	0.2	41.6	100.0	1,500
30–34	58.2	55.2	0.7	0.9	29.8	12.7	7.0	2.0	0.3	1.8	0.1	3.0	1.0	1.9	0.1	41.8	100.0	1,452
35–39	59.8	56.8	3.2	0.7	28.5	11.7	7.3	3.1	0.2	1.5	0.5	3.0	0.6	2.2	0.2	40.2	100.0	1,138
40–44	58.6	54.4	9.2	1.4	20.2	9.5	8.3	3.7	0.2	0.9	1.0	4.2	0.8	2.8	0.5	41.4	100.0	989
45–49	40.7	35.7	8.9	1.6	8.0	7.4	4.9	4.2	0.0	0.1	0.6	5.0	1.6	2.5	1.0	59.3	100.0	651
Residence																		
Urban	55.6	52.3	2.9	1.2	25.0	9.7	8.3	3.3	0.3	1.2	0.4	3.4	1.3	2.0	0.1	44.4	100.0	3,254
Rural	55.3	52.7	2.5	0.5	30.6	12.0	3.5	1.7	0.0	1.4	0.3	2.6	0.5	1.7	0.3	44.7	100.0	4,153
Province																		
Central	59.3	55.7	2.1	1.1	30.9	11.1	6.6	2.3	0.0	0.9	0.7	3.6	0.7	2.6	0.4	40.7	100.0	904
Copperbelt	60.4	58.1	2.3	1.3	30.2	9.8	8.8	3.4	0.5	1.5	0.3	2.3	0.6	1.7	0.0	39.6	100.0	970
Eastern	61.2	59.8	4.6	0.7	32.1	15.9	4.6	1.1	0.0	0.7	0.1	1.4	0.5	0.7	0.2	38.8	100.0	998
Luapula	51.0	49.4	4.2	0.5	23.5	13.7	2.6	2.1	0.1	2.6	0.0	1.6	0.6	0.4	0.7	49.0	100.0	565
Lusaka	54.7	51.5	3.2	0.9	23.6	10.1	8.0	3.6	0.3	1.4	0.3	3.2	1.6	1.7	0.0	45.3	100.0	1,258
Muchinga	51.6	47.6	0.7	0.6	28.8	12.6	3.2	1.3	0.0	0.2	0.2	4.0	0.1	2.9	1.0	48.4	100.0	369
Northern	51.2	44.6	2.4	0.5	26.8	9.1	2.7	2.3	0.0	0.7	0.1	6.6	1.6	4.8	0.2	48.8	100.0	638
North Western	45.4	43.9	4.8	0.2	23.8	8.2	2.1	1.6	0.0	2.7	0.5	1.4	0.2	1.1	0.2	54.6	100.0	448
Southern	54.9	52.1	0.8	1.0	29.3	10.0	6.3	1.9	0.3	1.9	0.6	2.8	1.1	1.5	0.2	45.1	100.0	916
Western	51.0	48.7	1.1	0.2	32.3	6.7	4.1	4.3	0.0	0.0	0.0	2.2	0.4	1.5	0.4	49.0	100.0	339
Education																		
No education	49.5	47.2	4.3	0.6	20.7	15.5	3.2	1.8	0.0	1.1	0.0	2.3	0.4	1.3	0.7	50.5	100.0	623
Primary	54.9	52.2	2.8	0.6	29.9	11.9	3.4	1.6	0.0	1.5	0.4	2.7	0.4	2.1	0.3	45.1	100.0	3,392
Secondary	56.7	54.0	1.7	0.7	29.6	10.0	7.5	2.9	0.2	1.2	0.2	2.7	1.0	1.5	0.2	43.3	100.0	2,861
Higher	59.1	52.9	5.5	2.8	18.0	5.7	12.3	5.8	1.0	1.0	0.7	6.2	3.6	2.6	0.0	40.9	100.0	531
Wealth quintile																		
Lowest	51.5	49.0	2.0	0.2	28.2	12.5	2.4	1.7	0.0	2.0	0.1	2.5	0.6	1.5	0.4	48.5	100.0	1,526
Second	53.8	51.4	2.6	0.5	31.4	11.7	2.5	1.1	0.0	1.2	0.4	2.4	0.3	1.9	0.2	46.2	100.0	1,456
Middle	58.0	55.4	2.7	0.6	32.7	11.7	3.9	2.2	0.1	1.3	0.2	2.6	0.2	2.0	0.3	42.0	100.0	1,435
Fourth	57.0	54.4	2.2	0.6	28.3	11.3	8.4	1.9	0.2	1.1	0.4	2.6	1.0	1.4	0.2	43.0	100.0	1,556
Highest	56.9	52.5	4.1	2.2	20.1	7.6	11.0	5.4	0.5	1.0	0.6	4.5	2.1	2.3	0.1	43.1	100.0	1,433
Total	55.4	52.5	2.7	0.8	28.1	11.0	5.6	2.4	0.2	1.3	0.3	2.9	0.8	1.8	0.2	44.6	100.0	7,407
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																		
Residence																		
Urban	51.7	48.3	0.8	0.4	19.9	10.1	3.1	9.6	3.9	0.4	0.3	3.4	0.8	2.6	0.0	48.3	100.0	533
Rural	48.9	47.0	1.9	0.0	26.4	8.7	1.8	6.9	0.4	0.7	0.2	1.9	1.3	0.3	0.2	51.1	100.0	501
Total	50.3	47.7	1.3	0.2	23.0	9.4	2.5	8.3	2.2	0.5	0.2	2.7	1.0	1.5	0.1	49.7	100.0	1,034

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Includes female condom, standard days method, and other modern methods mentioned by the respondent
[2] Women who have had sexual intercourse within 30 days preceding the survey
LAM = lactational amenorrhoea method

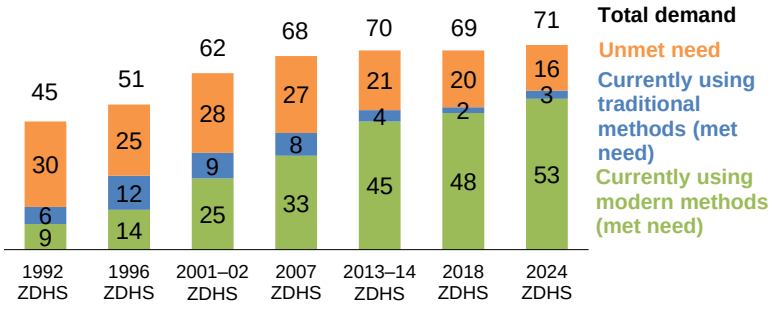
Trends: Modern contraceptive use among currently married women has increased steadily over time, from 9% in 1992 to 53% in 2024 (**Figure 3**).

3.6.2 Need and Demand for Family Planning

Table 7 presents data on unmet need, met need, and total demand for family planning among currently married and sexually active unmarried women. These indicators help evaluate the extent to which family planning programmes in Zambia are meeting the demand for services.

Figure 3 **Trends in use of, need for, and demand for family planning**

Percentage of currently married women age 15–49



Unmet need for family planning

Percentage of women who (1) are not pregnant and not postpartum amenorrheic and are considered fecund and want to postpone their next birth for 2 or more years or stop childbearing altogether but are not using a contraceptive method, or (2) have a mistimed or unwanted current pregnancy, or (3) are postpartum amenorrhoeic and their most recent birth in the past 2 years was mistimed or unwanted.

Met need for family planning

Current contraceptive use (any method).

Sample: Currently married women age 15–49 and sexually active unmarried women age 15–49

Demand for family planning:

Unmet need for family planning + met need (current contraceptive use [any method])

Proportion of demand satisfied:

$$\frac{\text{Current contraceptive use (any method)}}{\text{Unmet need + current contraceptive use (any method)}}$$

Proportion of demand satisfied by modern methods:

$$\frac{\text{Current contraceptive use (any modern method)}}{\text{Unmet need + current contraceptive use (any method)}}$$

- In Zambia, 71% of currently married women have a demand for family planning. Seventy-eight percent of this demand is satisfied, and 74% is satisfied by modern methods.
- Sixteen percent of currently married women have an unmet need for family planning.
- Eighty-four percent of sexually active unmarried women have a demand for family planning. Sixty percent of this demand is satisfied, and 57% is satisfied by modern methods.
- Thirty-four percent of sexually active unmarried women have an unmet need for family planning.

Trends: Total demand for family planning among currently married women increased from 45% in 1992 to 71% in 2024. Over this same period, unmet need declined from 30% to 16% (**Figure 3**).

Table 7 Need and demand for family planning among currently married women and sexually active unmarried women

Percentage of currently married women and sexually active unmarried women age 15–49 with unmet need for family planning, percentage with met need for family planning, percentage with met need for family planning who are using modern methods, percentage with demand for family planning, percentage of the demand for family planning that is satisfied, and percentage of the demand for family planning that is satisfied with modern methods, according to background characteristics, Zambia DHS 2024

Background characteristic	Unmet need for family planning	Met need for family planning (currently using)		Total demand for family planning[3]	Number of women	Percentage of demand satisfied[1]	
		All methods	Modern methods[2]			All methods	Modern methods[2]
CURRENTLY MARRIED WOMEN							
Age							
15–19	18.0	43.8	42.4	61.8	442	70.8	68.7
20–24	15.0	54.0	52.1	69.0	1,235	78.3	75.5
25–29	13.4	58.4	56.1	71.8	1,500	81.3	78.2
30–34	13.5	58.2	55.2	71.8	1,452	81.2	76.9
35–39	17.1	59.8	56.8	76.8	1,138	77.8	73.9
40–44	17.9	58.6	54.4	76.4	989	76.6	71.1
45–49	19.2	40.7	35.7	60.0	651	68.0	59.6
Residence							
Urban	15.5	55.6	52.3	71.1	3,254	78.2	73.4
Rural	15.7	55.3	52.7	71.0	4,153	77.9	74.3
Province							
Central	12.2	59.3	55.7	71.4	904	83.0	77.9
Copperbelt	13.2	60.4	58.1	73.6	970	82.1	78.9
Eastern	14.1	61.2	59.8	75.3	998	81.3	79.4
Luapula	13.7	51.0	49.4	64.7	565	78.8	76.3
Lusaka	16.9	54.7	51.5	71.6	1,258	76.4	71.9
Muchinga	16.9	51.6	47.6	68.5	369	75.3	69.4
Northern	18.5	51.2	44.6	69.7	638	73.4	64.0
North Western	22.6	45.4	43.9	68.0	448	66.7	64.6
Southern	16.4	54.9	52.1	71.3	916	77.1	73.2
Western	16.8	51.0	48.7	67.7	339	75.2	71.9
Education							
No education	21.1	49.5	47.2	70.6	623	70.2	66.9
Primary	15.8	54.9	52.2	70.7	3,392	77.6	73.8
Secondary	14.8	56.7	54.0	71.4	2,861	79.4	75.6
Higher	12.6	59.1	52.9	71.8	531	82.4	73.7
Wealth quintile							
Lowest	17.9	51.5	49.0	69.4	1,526	74.2	70.6
Second	17.0	53.8	51.4	70.9	1,456	76.0	72.6
Middle	13.6	58.0	55.4	71.6	1,435	81.0	77.3
Fourth	14.8	57.0	54.4	71.8	1,556	79.4	75.7
Highest	14.7	56.9	52.5	71.6	1,433	79.5	73.3
Total	15.6	55.4	52.5	71.1	7,407	78.0	73.9
SEXUALLY ACTIVE UNMARRIED WOMEN[4]							
Residence							
Urban	35.9	51.7	48.3	87.6	533	59.0	55.1
Rural	31.0	48.9	47.0	79.9	501	61.2	58.9
Total	33.5	50.3	47.7	83.9	1,034	60.0	56.8

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al. 2012.
[1] Percentage of demand satisfied is met need divided by total demand.
[2] Modern methods include female sterilisation, male sterilisation, IUCD, injectables, implants, pill, male condom, female condom, emergency contraception, standard days method, lactational amenorrhoea method, and other modern methods.
[3] Total demand is the sum of unmet need and met need.
[4] Women who have had sexual intercourse within 30 days preceding the survey

3.7 EARLY CHILDHOOD MORTALITY

Neonatal mortality: The probability of dying within the first month of life.

Postneonatal mortality: The probability of dying between the first month of life and the first birthday (computed as the difference between infant and neonatal mortality).

Infant mortality: The probability of dying between birth and the first birthday.

Child mortality: The probability of dying between the first and the fifth birthday.

Under-5 mortality: The probability of dying between birth and the fifth birthday.

Table 8 presents estimates of childhood mortality for three successive 5-year periods prior to the 2024 ZDHS. The rates were estimated directly from information collected as part of a retrospective pregnancy history in which female respondents listed all of the children to whom they have given birth, along with each child's date of birth, survivorship status, and current age or age at death.

- During the 5 years preceding the 2024 survey, the neonatal mortality rate was 17 deaths per 1,000 live births, the infant mortality rate was 29 deaths per 1,000 live births, and the under-5 mortality rate was 42 deaths per 1,000 live births.

Table 8 Early childhood mortality rates

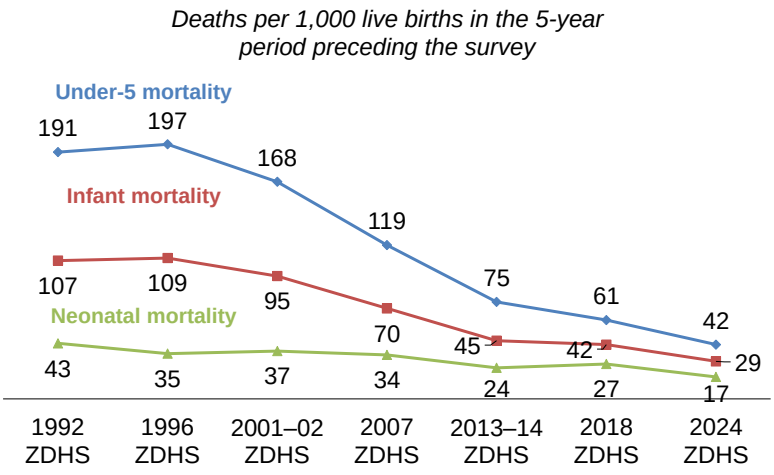
Neonatal, postneonatal, infant, child, and under-5 mortality rates for 5-year periods preceding the survey, Zambia DHS 2024

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0–4	17	11	29	13	42
5–9	20	12	32	12	44
10–14	19	15	34	25	58

[1] Computed as the difference between the infant and neonatal mortality rates

Trends: Neonatal mortality decreased from 43 deaths per 1,000 live births in the 5 years preceding the 1992 survey to 17 deaths per 1,000 live births in the 5 years preceding the 2024 survey. The infant mortality rate also showed a substantial decline, falling from 107 deaths per 1,000 live births in the 5 years preceding the 1992 survey to 29 deaths per 1,000 live births in the 5 years preceding the 2024 survey. Similarly, under-5 mortality dropped from 191 deaths per 1,000 live births in the 5 years preceding the 1992 survey to 42 deaths per 1,000 live births in the 5 years preceding the 2024 survey (**Figure 4**).

Figure 4 **Trends in early childhood mortality rates**



3.8 MATERNAL CARE

Proper care during pregnancy and delivery is important for the health of both the mother and the baby. **Table 9** presents key indicators related to maternal care.

3.8.1 Antenatal Care

Antenatal care from a skilled provider

Pregnancy care received from skilled providers, such as doctors, nurses/midwives, and clinical officers.

Sample: Women age 15–49 who had a live birth or stillbirth in the 2 years before the survey

Antenatal care (ANC) from a skilled provider is important to monitor pregnancy and reduce morbidity and mortality risks for the mother and child during pregnancy, at delivery, and during the postnatal period.

- Ninety-eight percent of women who had a live birth in the 2 years preceding the survey received antenatal care from skilled providers.
- Eighty-two percent of women had four or more ANC visits during their most recent pregnancy resulting in a live birth.
- Most (94%) women who had a live birth in the 2 years preceding the survey took some form of iron supplementation during their pregnancy.

Trends: The percentage of women with a live birth in the 2 years preceding the survey who received antenatal care from a skilled provider has generally increased over time, rising from 88% in 1992 to 98% in 2024.

3.8.2 Tetanus Toxoid

Protection against neonatal tetanus

The number of tetanus toxoid injections needed to protect a baby from neonatal tetanus depends on the mother's vaccinations. A birth is protected against neonatal tetanus if the mother has received any of the following:

- Two tetanus toxoid injections during the pregnancy
- Two or more injections, the last one within 3 years of the birth
- Three or more injections, the last one within 5 years of the birth
- Four or more injections, the last one within 10 years of the birth
- Five or more injections at any time prior to the birth

Sample: Women age 15–49 with a live birth in the 2 years before the survey

Tetanus toxoid injections are given during pregnancy to prevent neonatal tetanus, a major cause of early infant death in many countries. Neonatal tetanus is often caused by failure to observe hygienic procedures during delivery.

- Seventy-two percent of women with a live birth in the 2 years before the survey received sufficient tetanus toxoid injections to protect their baby against neonatal tetanus.

Table 9 Maternal care indicators

Among women age 15–49 who had a live birth and/or a stillbirth in the 2 years preceding the survey, percentage who received antenatal care (ANC) from a skilled provider for the most recent live birth or stillbirth, percentage with four or more ANC visits for the most recent live birth or stillbirth, percentage who took any iron-containing supplements during the pregnancy for the most recent live birth or stillbirth, and percentage whose most recent live birth was protected against neonatal tetanus; among all live births and stillbirths in the 2 years before the survey, percentage delivered by a skilled provider and percentage delivered in a health facility; and among women age 15–49 with a live birth or stillbirth in the 2 years preceding the survey, percentage who received a postnatal check during the first 2 days after giving birth, according to background characteristics, Zambia DHS 2024

	Women who had a live birth and/or a stillbirth in the 2 years preceding the survey					Live births and stillbirths in the 2 years preceding the survey			Women who had a live birth and/or a stillbirth in the 2 years preceding the survey	
Background characteristic	Percentage receiving antenatal care from a skilled provider[1]	Percentage with 4+ ANC visits	Percentage who took any iron-containing supple-ments during pregnancy[2]	Percentage whose most recent live birth was protected against neonatal tetanus[3]	Number of women	Percentage delivered by a skilled provider[1]	Percentage delivered in a health facility	Number of births	Percentage of women with a postnatal check during the first 2 days after birth[4]	Number of women
					LIVE BIRTHS					
Mother's age at birth										
<20	98.3	80.0	93.0	54.3	772	94.9	94.3	784	83.7	772
20–34	98.7	84.4	93.9	76.5	2,145	94.3	93.3	2,199	85.2	2,145
35–49	97.0	75.4	92.4	82.5	513	90.4	89.6	534	85.0	513
Residence										
Urban	98.9	81.3	94.7	80.1	1,370	97.3	96.3	1,399	90.8	1,370
Rural	98.0	82.5	92.7	67.3	2,061	91.6	90.8	2,118	80.9	2,061
Province										
Central	99.0	78.1	96.9	74.4	411	91.5	89.7	426	79.5	411
Copperbelt	100.0	83.5	95.4	80.4	375	96.1	95.8	381	90.2	375
Eastern	97.4	88.6	88.1	64.7	441	98.2	96.7	454	87.8	441
Luapula	99.7	84.5	87.9	73.2	295	97.8	98.2	299	93.5	295
Lusaka	97.8	75.1	94.3	81.2	511	96.1	95.1	522	92.0	511
Muchinga	98.0	83.2	96.0	74.3	179	93.7	93.4	182	85.1	179
Northern	98.5	83.8	91.5	52.8	320	95.4	94.0	329	78.4	320
North Western	97.5	80.8	93.8	75.3	257	90.1	87.8	264	78.5	257
Southern	98.4	82.9	95.8	72.8	445	91.4	91.4	459	81.7	445
Western	96.9	83.4	96.2	72.2	197	81.5	80.6	200	73.5	197
Mother's education										
No education	96.6	72.0	86.8	63.3	256	87.3	86.6	265	78.0	256
Primary	97.8	81.2	91.9	68.3	1,542	91.9	90.6	1,579	80.5	1,542
Secondary	99.1	83.6	95.6	76.2	1,442	96.4	95.7	1,480	89.8	1,442
Higher	100.0	90.7	98.6	89.1	190	99.3	99.3	193	92.6	190
Wealth quintile										
Lowest	96.8	83.1	92.1	64.6	849	88.8	87.7	872	76.1	849
Second	99.0	81.2	92.2	69.2	725	93.0	92.0	746	83.8	725
Middle	98.8	80.1	93.7	69.4	680	93.9	92.8	695	84.9	680
Fourth	98.4	79.7	93.7	78.3	674	97.6	97.0	694	91.5	674
Highest	99.7	87.4	97.0	86.6	502	98.6	98.1	509	92.3	502
Total	98.4	82.1	93.5	72.4	3,431	93.9	93.0	3,517	84.9	3,431
					STILLBIRTHS					
Total	95.5	67.6	96.7	na	49	89.2	91.3	51	65.2	49
					LIVE BIRTHS AND STILLBIRTHS[5]					
Total	98.3	81.9	93.5	na	3,469	93.8	92.9	3,567	84.7	3,469

Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation. Stillbirths are foetal deaths in pregnancies lasting 28 or more weeks. When pregnancy duration is reported in months, stillbirths are foetal deaths in pregnancies lasting 7 or more months.

na = not applicable

[1] Skilled provider includes doctor, nurse/midwife, and clinical officer.

[2] Iron tablets and syrup or combined folic acid and iron tablets

[3] Includes mothers with two injections during the pregnancy of their most recent live birth, or two or more injections (the last within 3 years of the most recent live birth), or three or more injections (the last within 5 years of the most recent live birth), or four or more injections (the last within 10 years of the most recent live birth), or five or more injections at any time prior to the last live birth

[4] Includes women who received a check from a doctor, midwife, nurse, community health worker, or traditional birth attendant

[5] For women who had both a live birth and a stillbirth in the 2 years preceding the survey, data on antenatal care and postnatal checks are tabulated for the most recent birth only.

3.8.3 *Delivery Care*

Institutional deliveries
Deliveries that occur in a health facility.
Sample: All live births and/or stillbirths in the 2 years before the survey

Skilled assistance during delivery
Births delivered with the assistance of doctors, nurses/midwives, or clinical officers.
Sample: All live births and/or stillbirths in the 2 years before the survey

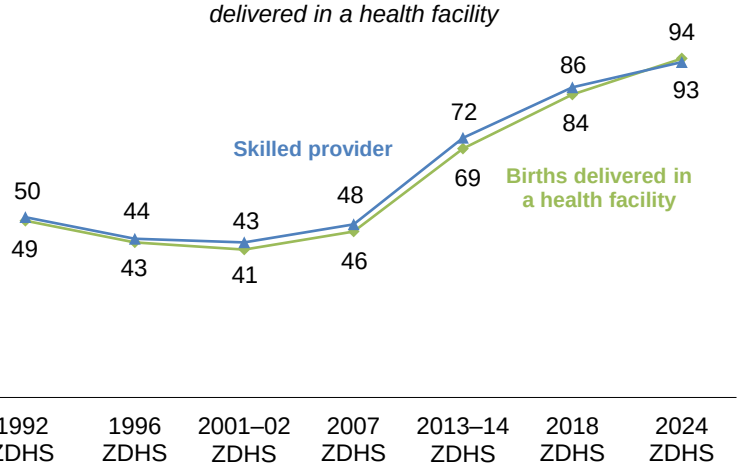
Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that could lead to death or serious illness for the mother, baby, or both (Van Lerberghe and De Brouwere 2001; WHO 2006a).

- Overall, 94% of live births were assisted during delivery by a skilled provider.
- Ninety-three percent of live births were delivered in a health facility.

Trends: As shown in **Figure 5**, the percentage of live births assisted by a skilled provider increased from 49% in 1992 to 94% in 2024. Similarly, the percentage of births delivered in health facilities increased from 50% in 1992 to 93% in 2024.

Figure 5 **Trends in delivery assistance**

Percentage of live births in the 2 years preceding the survey delivered by a skilled provider and percentage delivered in a health facility



3.8.4 *Postnatal Care for the Mother*

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Thus, prompt postnatal care (PNC) for both the mother and the child is important to treat any complications arising from the delivery, as well as to provide the mother with important information on how to care for herself and her child. Safe motherhood programmes recommend that all women receive a check of their health during the first 2 days after delivery.

- Among women who had a live birth in the 2 years preceding the survey, 85% received a postnatal check during the first 2 days after birth.

3.9 VACCINATION COVERAGE

Universal immunisation of children against common vaccine-preventable diseases is crucial in reducing infant and child morbidity and mortality. In Zambia, routine childhood vaccines include bacille Calmette-Guérin (BCG) (tuberculosis), oral polio vaccine (OPV) or inactivated polio vaccine (IPV), DPT-HepB-Hib

(diphtheria, pertussis, and tetanus; hepatitis B; and *Haemophilus influenzae* type b), pneumococcal conjugate vaccine (PCV), rotavirus vaccine (RV), and measle-rubella vaccine (MR).

Information on vaccination coverage was obtained in two ways in the 2024 ZDHS: from written vaccination records, including vaccination or health cards, and from verbal reports. Overall, vaccination cards were observed for 75% of children age 12–23 months and 69% of children age 24–35 months (data not shown).

3.9.1 Basic Antigen Coverage

Fully vaccinated: basic antigens

Percentage of children who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report). To have received all basic antigens, a child must receive at least:

- One dose of BCG vaccine, which protects against tuberculosis
- Three doses of polio vaccine given as oral polio vaccine (OPV), inactivated polio vaccine (IPV), or a combination of OPV and IPV
- Three doses of DPT-containing vaccine, which protects against diphtheria, pertussis (whooping cough), and tetanus, given as DPT-HepB-Hib
- One dose of measles-containing vaccine given as measles-rubella (MR)

Sample: Children age 12–23 months

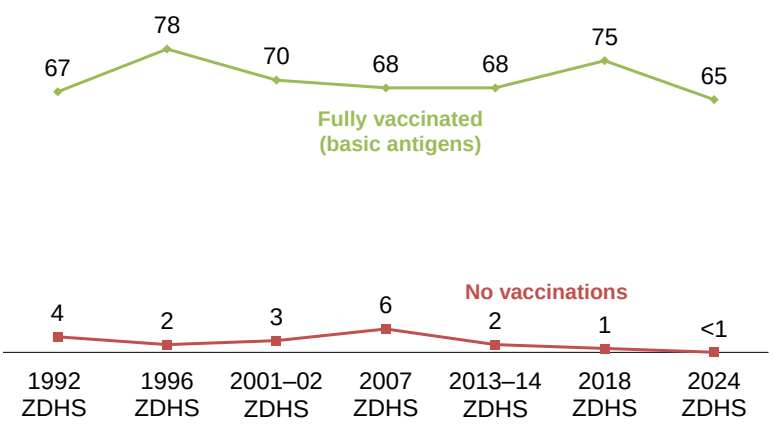
Historically, an important measure of vaccination coverage has been the proportion of children receiving all "basic" antigens. Children are considered fully vaccinated against all basic antigens if they have received the BCG vaccine, three doses each of polio vaccine and DPT-containing vaccine, and a single dose of measles-containing vaccine. In Zambia, the BCG vaccine is usually given at birth or at first clinic contact, while the polio and DPT-containing vaccines are given at approximately age 6, 10, and 14 weeks. A first measles-containing vaccination should be given at or soon after age 9 months.

- Among children age 12–23 months, 95% received the BCG vaccine, 88% received three doses of DPT-HepB-Hib, and 88% received the first dose of MR vaccine.
- Overall, 65% of children age 12–23 months are fully vaccinated with basic antigens.

Trends: The percentage of children age 12–23 months who received all basic antigens has fluctuated since 1992 (**Figure 6**), ranging from a high of 78% in 1996 to a low of 65% in 2024. The percentage of children age 12–23 months who did not receive any vaccinations has generally declined over time, from 4% in 1992 to less than 1% in 2024.

Figure 6 **Trends in childhood vaccinations**

Percentage of children age 12–23 months



3.9.2 Vaccination Coverage according to National Schedule

A second measure of vaccination coverage is the percentage of children age 12–23 months and 24–35 months who are fully vaccinated according to the national schedule. In this report, a child age 12–23

months is considered to be fully vaccinated according to the national schedule if the child has received all basic antigens as well as a birth dose of OPV or a fourth dose if OPV was not given at birth (for a total of four doses), a dose of IPV, three doses of HepB and Hib (given as part of DPT-containing vaccine), three doses of the pneumococcal vaccine, and two doses of rotavirus vaccine. Children age 24–35 months are considered fully vaccinated according to the national schedule if they receive a second dose of the MR vaccine in addition to all of the vaccinations relevant for a child age 12–23 months.

A note regarding the OPV3 and IPV vaccinations: according to the routine vaccination schedule in Zambia, both vaccines should be given during the same visit (at 14 weeks). When information on OPV3 and IPV was collected by observing a vaccination card, it should have been possible for interviewers to determine if this was in fact the case. However, there are several different vaccination cards in circulation in Zambia. In some, the box to record the date OPV3 and IPV were given is shared; health care workers are instructed to record a single date in the box when the two vaccines are given at the same time. In contrast, in instances where either vaccine is provided at a separate visit, health care workers are instructed to record the vaccination in the "other immunisations" section of the card. This card design added complexity to the task of recording in the questionnaire the dates that OPV3 and IPV were given. Moreover, interviewers observed inconsistency in how OPV3 and IPV were recorded on cards by health care workers in practice. Taken together, the design of the vaccination cards adds uncertainty in the accuracy of IPV and OPV3 estimates.

- Seventy-five percent of children age 12–23 months received a birth dose of OPV, 98% received OPV1, 95% received OPV2, 77% received OPV3, and 14% received OPV4. Seventy-eight percent of children received IPV.
- Eighty-three percent of children age 12–23 months received three doses of pneumococcal vaccine, and 50% received two doses of rotavirus vaccine.
- Twenty percent of children age 12–23 months are fully vaccinated according to the national schedule.
- Among children age 24–35 months, 70% received a second dose of MR vaccine and 29% are fully vaccinated according to the national schedule.

Table 10 Vaccinations by background characteristics

Percentage of children age 12–23 months and children age 24–35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), percentage fully vaccinated (basic antigens), percentage fully vaccinated (according to national schedule), and percentage who received no vaccinations, according to background characteristics, Zambia DHS 2024

	Children age 12–23 months:																			Children age 24–35 months:		
		DPT-HepB-Hib			OPV[1]						Pneumococcal			Rotavirus								
Background characteristic	BCG	1	2	3	0	1	2	3	4	IPV	1	2	3	1	2	MR1	Fully vaccinated (basic antigens)[2]	Fully vaccinated (according to national schedule)[3]	No vaccinations	Number of children	MR2	Fully vaccinated (according to national schedule)[4]	Number of children
Sex																							
Male	95.0	98.2	96.0	89.4	73.3	98.1	95.3	79.2	14.8	78.3	97.5	94.0	83.7	71.8	49.5	89.9	67.9	19.1	0.4	819	71.4	29.3	767
Female	94.4	98.2	95.3	86.7	75.9	98.2	93.7	74.4	13.7	76.7	97.1	92.9	81.3	71.9	50.3	86.5	62.0	20.3	0.4	873	69.5	28.8	810
Birth order																							
1	96.2	97.5	95.6	87.1	76.5	97.8	95.0	77.4	15.8	75.7	97.1	93.6	82.8	69.3	47.9	92.2	68.0	18.3	0.2	499	75.7	29.8	429
2–3	94.1	99.3	97.2	89.1	73.0	98.5	95.1	77.8	14.2	79.5	97.8	95.0	83.0	75.0	55.3	88.6	65.7	22.1	0.3	629	67.3	29.3	568
4–5	96.2	98.6	95.7	90.5	78.1	98.0	95.3	78.1	13.6	77.0	97.3	93.5	83.5	69.6	46.2	83.8	64.4	18.6	0.3	350	71.1	27.8	343
6+	90.8	95.9	90.8	82.6	69.4	98.1	90.2	69.5	11.4	76.5	96.2	88.6	78.6	72.4	44.8	84.5	55.7	18.0	1.4	215	67.4	28.8	238
Vaccination card[5]																							
Seen	94.6	99.1	97.0	89.4	70.8	99.3	97.3	90.5	17.9	75.1	98.0	93.9	81.9	67.5	42.7	89.0	76.1	19.0	0.0	1,273	69.6	31.6	1,095
Not seen or no longer has	96.5	97.5	93.9	86.4	89.6	95.5	86.3	36.1	3.3	87.8	96.5	94.1	87.2	87.7	74.2	86.9	31.6	23.5	0.6	375	74.1	23.5	418
Never had	(82.1)	(78.5)	(71.6)	(61.8)	(55.9)	(87.5)	(82.1)	(23.9)	(2.2)	(59.7)	(82.0)	(74.6)	(58.9)	(63.7)	(50.9)	(75.1)	(22.2)	(8.5)	(11.2)	45	59.8	21.5	65
Residence																							
Urban	97.2	99.4	97.7	90.7	85.3	99.6	96.7	81.5	12.3	78.1	97.8	95.4	85.9	72.1	53.3	88.6	69.9	23.2	0.1	675	72.6	31.2	641
Rural	93.1	97.4	94.2	86.2	67.5	97.2	93.0	73.5	15.5	77.1	96.9	92.2	80.2	71.7	47.6	87.8	61.5	17.4	0.6	1,018	69.0	27.5	936
Province																							
Central	95.9	97.6	96.2	86.9	71.0	97.5	96.5	76.4	19.1	64.5	97.4	94.3	83.5	78.1	56.4	89.7	66.1	20.1	0.0	210	79.7	32.3	187
Copperbelt	94.8	100.0	99.7	92.8	85.2	100.0	98.0	82.7	16.1	67.1	96.6	95.7	89.7	72.4	56.8	91.4	70.8	24.3	0.0	181	63.3	27.7	210
Eastern	93.3	97.5	93.1	86.5	75.1	98.6	95.6	76.7	17.8	74.1	97.1	92.5	79.1	70.8	46.2	83.7	62.3	18.8	1.1	214	60.6	23.4	201
Luapula	94.8	99.4	97.4	93.3	83.1	98.4	94.4	73.8	12.8	93.0	99.5	96.9	91.1	71.5	43.6	89.9	62.2	19.2	0.0	160	70.8	38.2	117
Lusaka	97.3	99.4	97.6	88.2	83.8	99.4	97.2	80.8	12.0	76.3	97.8	93.7	78.4	68.5	49.4	84.9	66.1	19.8	0.4	261	81.0	33.4	224
Muchinga	97.2	100.0	98.4	92.8	65.9	97.5	95.6	74.6	16.6	84.1	100.0	98.4	87.2	65.1	49.7	91.4	65.1	21.1	0.0	81	77.3	25.6	86
Northern	92.5	95.6	91.9	82.4	61.6	96.3	88.2	68.2	18.4	83.4	92.4	86.4	73.2	73.8	42.0	84.8	57.4	16.1	0.9	164	57.0	15.6	130
North Western	92.6	95.1	91.4	83.0	63.0	97.5	89.5	70.3	10.8	73.5	97.4	91.6	77.8	59.9	34.8	86.7	58.7	12.2	1.3	127	63.8	22.2	128
Southern	93.9	99.2	94.7	90.1	80.8	96.6	92.7	76.5	3.9	85.5	98.2	93.0	84.0	74.7	57.4	93.3	69.4	19.2	0.0	202	80.6	32.2	197
Western	93.9	97.7	95.5	82.6	53.5	99.3	93.7	85.4	17.7	84.0	97.0	94.6	85.4	82.1	61.1	88.6	68.5	29.4	0.7	94	63.6	39.3	97

Continued…

Table 10—*Continued*

Background characteristic	Children age 12–23 months: BCG	DPT-HepB-Hib 1	DPT-HepB-Hib 2	DPT-HepB-Hib 3	OPV[1] 0	OPV[1] 1	OPV[1] 2	OPV[1] 3	OPV[1] 4	IPV	Pneumococcal 1	Pneumococcal 2	Pneumococcal 3	Rotavirus 1	Rotavirus 2	MR1	Fully vaccinated (basic antigens)[2]	Fully vaccinated according to national schedule[3]	No vaccinations	Number of children	Children age 24–35 months: MR2	Fully vaccinated according to national schedule[4]	Number of children
Education																							
No education	94.1	97.3	91.8	85.5	70.3	96.6	89.8	60.8	13.3	80.7	97.4	91.8	83.2	79.4	47.3	80.5	46.7	17.4	0.5	128	52.7	25.8	121
Primary	92.6	96.9	92.9	84.8	70.0	96.9	91.8	72.0	13.2	74.6	96.1	91.0	78.5	72.0	47.5	85.0	59.2	18.1	0.9	757	67.2	25.1	727
Secondary	96.5	99.5	98.6	90.9	78.6	99.6	97.8	83.3	15.5	79.1	98.1	95.5	85.1	70.1	51.4	92.2	72.4	21.3	0.0	708	74.3	32.9	637
Higher	98.7	100.0	100.0	94.1	86.6	100.0	97.7	86.1	14.5	84.6	100.0	100.0	93.4	74.0	60.8	93.8	77.7	24.1	0.0	100	92.5	37.7	92
Wealth quintile																							
Lowest	91.9	96.2	91.3	81.1	63.6	96.4	89.3	68.5	14.2	76.3	96.4	88.9	74.0	72.0	47.9	87.2	57.1	17.0	0.3	410	61.8	27.9	404
Second	92.9	98.0	96.3	89.1	72.5	97.9	95.0	76.1	13.6	78.7	97.3	94.1	85.0	71.1	46.6	83.9	61.3	16.9	0.9	357	68.8	24.0	329
Middle	95.4	97.7	94.5	87.6	72.2	97.5	93.2	74.2	16.1	76.6	96.8	93.7	84.3	72.0	49.2	88.6	61.8	21.1	0.8	329	71.5	27.9	325
Fourth	96.9	100.0	98.5	94.0	80.9	99.8	98.5	84.6	13.3	75.9	99.3	97.1	88.3	72.5	53.7	89.8	72.5	20.1	0.0	337	75.0	30.7	285
Highest	98.1	100.0	99.1	89.9	89.8	100.0	98.5	83.4	13.8	81.1	96.6	95.0	82.5	71.8	53.6	92.8	75.9	25.8	0.0	259	80.5	37.6	235
Total	94.7	98.2	95.6	88.0	74.6	98.2	94.5	76.7	14.2	77.5	97.3	93.5	82.5	71.9	49.9	88.2	64.8	19.7	0.4	1,693	70.4	29.0	1,577

Note: Children are considered to have received the vaccine if it was either written on the child's vaccination card or reported by the mother. For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination. Figures in parentheses are based on 25–49 unweighted cases.
BCG = bacille Calmette-Guerin
DPT = diphtheria-pertussis-tetanus
HepB = hepatitis B
Hib = *Haemophilus influenzae* type b
MR = measles-rubella
OPV = oral polio vaccine
IPV = inactivated polio vaccine
[1] OPV 0 is the polio vaccination given at birth.
[2] BCG, three doses of DPT-HepB-Hib, three doses of polio vaccine (excluding polio vaccine given at birth), and one dose of MR
[3] BCG, three doses of DPT-HepB-Hib, four doses of OPV, one dose of IPV, three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and one dose of MR
[4] BCG, three doses of DPT-HepB-Hib, four doses of OPV, one dose of IPV, three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and two doses of MR
[5] Vaccination card, booklet, or other home-based record

3.10 CARE SEEKING FOR AND TREATMENT OF CHILD ILLNESS

Acute respiratory infection (ARI), fever, and dehydration from diarrhoea are important contributing causes of childhood morbidity and mortality in developing countries (WHO 2003). Prompt medical attention when a child has the symptoms of these illnesses is, therefore, crucial in reducing child deaths. **Table 11** presents information on care seeking for ill children in Zambia. Overall, 2% of children under age 5 showed symptoms of an ARI, 18% had a fever, and 14% experienced diarrhoea in the 2 weeks preceding the survey (data not shown).

- Advice or treatment was sought for 85% of children with symptoms of ARI in the 2 weeks before the survey.
- Advice or treatment was sought for 80% of children with a fever in the 2 weeks before the survey.
- Advice or treatment was sought for 70% of children with diarrhoea in the 2 weeks before the survey.
- Sixty-one percent of children with diarrhoea received oral rehydration salts (ORS), 46% received zinc supplements, 38% received ORS and zinc supplements, and 29% received ORS, zinc supplements, and continued feeding.

Table 11 Treatment for acute respiratory infection, fever, and diarrhoea

Among children under age 5 who had symptoms of acute respiratory infection (ARI) or had a fever during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, and among children under age 5 who had diarrhoea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage given a fluid made from oral rehydration salt (ORS) packets, percentage given zinc, percentage given ORS and zinc, and percentage given ORS, zinc, and continued feeding, according to background characteristics, Zambia DHS 2024

	Children with symptoms of ARI[1]		Children with fever		Children with diarrhoea					
Background characteristic	Percentage for whom advice or treatment was sought[2]	Number of children	Percentage for whom advice or treatment was sought[2]	Number of children	Percentage for whom advice or treatment was sought[2]	Percentage given fluid from ORS packet	Percentage given zinc	Percentage given ORS[3] and zinc	Percentage given ORS, zinc, and continued feeding[3, 4]	Number of children
Age in months										
<6	*	12	67.6	90	53.1	33.9	25.2	17.4	13.3	60
6–11	*	19	82.7	202	70.4	62.1	45.0	38.8	26.5	242
12–23	(77.3)	26	82.1	352	71.2	67.4	51.4	44.2	34.2	387
24–35	(87.7)	25	77.3	323	74.5	60.2	44.5	36.3	25.7	194
36–47	(83.2)	30	81.9	297	60.7	53.0	37.0	31.3	24.6	122
48–59	*	22	82.2	220	71.2	61.6	51.3	40.2	34.0	100
Sex										
Male	81.0	68	78.1	753	71.3	62.2	45.0	39.0	27.7	537
Female	90.0	66	82.5	731	67.8	60.0	46.5	37.8	29.8	567
Residence										
Urban	(86.8)	37	78.9	480	66.1	63.7	50.9	43.4	35.3	445
Rural	84.9	97	80.9	1,004	71.8	59.3	42.3	35.0	24.4	660
Province										
Central	(88.2)	37	86.1	230	68.5	58.8	43.0	34.9	24.8	142
Copperbelt	*	11	78.2	211	64.8	60.9	43.6	34.1	21.2	151
Eastern	*	23	85.2	162	78.4	69.6	41.3	36.5	25.6	147
Luapula	*	9	84.6	165	81.4	71.6	56.6	46.8	32.0	97
Lusaka	*	11	76.3	105	62.9	70.9	58.1	52.1	47.0	152
Muchinga	*	2	83.4	76	71.1	57.8	45.5	43.2	37.6	53
Northern	*	10	76.5	132	60.1	39.2	33.5	21.5	12.6	87
North Western	*	3	91.8	133	83.8	62.6	60.1	47.4	43.5	56
Southern	*	14	58.8	120	65.5	53.8	42.1	36.5	24.7	130
Western	*	13	75.3	149	67.3	55.5	37.4	32.5	26.1	90
Mother's education										
No education	*	5	83.8	134	71.7	60.3	45.2	38.9	31.1	88
Primary	81.7	70	79.4	741	70.7	60.1	40.2	35.3	24.9	533
Secondary	88.4	51	81.0	544	68.5	63.9	50.6	42.4	32.9	436
Higher	*	8	75.1	65	(60.7)	(47.3)	(66.0)	(35.3)	(30.7)	48
Wealth quintile										
Lowest	(92.2)	31	78.4	415	72.0	55.7	40.1	32.1	21.4	283
Second	(84.1)	31	81.4	375	71.6	61.6	41.0	36.4	24.9	236
Middle	(78.2)	34	84.3	316	74.6	66.6	47.5	40.4	32.1	225
Fourth	*	22	77.4	228	66.7	65.1	50.9	46.6	36.6	226
Highest	*	15	78.2	150	56.6	55.3	54.7	37.8	32.7	135
Total	85.4	134	80.2	1,484	69.5	61.1	45.8	38.4	28.8	1,105

Note: Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Symptoms of ARI include short, rapid breathing that is chest-related and/or difficult breathing that is chest-related.
[2] Includes advice or treatment from the following sources: public sector, private medical sector, nongovernmental organisation medical sector, shop, market, and itinerant medicine seller. Excludes advice or treatment from a traditional practitioner.
[3] Fluid from ORS packet commonly called Manzi Ya Moyo
[4] Continued feeding includes children who were given more, the same as usual, or somewhat less food during the diarrhoea episode.

3.11 CHILD NUTRITIONAL STATUS

Anthropometry is commonly used to measure child nutritional status. Anthropometric measurements are used to report on child growth indicators. The distribution of height and weight for children under age 5 was compared with the WHO Child Growth Standards reference population (WHO 2006b). The distribution of a well-nourished population will be similar to that of the reference population, while the distribution of a poorly nourished population will not. The indices height-for-age, weight-for-height, and weight-for-age can be expressed in standard deviation units (*z* scores) from the median of the reference population. Values that are greater than two standard deviations below the median of the WHO Child Growth Standards are used to define malnutrition.

Stunting (assessed via height-for-age)

Height-for-age is a measure of growth faltering. Children whose height-for-age *z* score is below minus two standard deviations (−2 SD) from the median of the reference population are considered short for their age (stunted). Children whose *z* score is below minus three standard deviations (−3 SD) from the median are considered severely stunted.

Sample: Children under age 5

Wasting (assessed via weight-for-height)

The weight-for-height index measures body mass in relation to body height or length and describes acute undernutrition. Children whose weight-for-height *z* score is below minus two standard deviations (−2 SD) from the median of the reference population are considered thin (wasted). Children whose *z* score is below minus three standard deviations (−3 SD) from the median are considered severely wasted.

Sample: Children under age 5

Underweight (assessed via weight-for-age)

Weight-for-age is a composite index of height-for-age and weight-for-height that takes into account both wasting and stunting. Children whose weight-for-age *z* score is below minus two standard deviations (−2 SD) from the median of the reference population are classified as underweight. Children whose *z* score is below minus three standard deviations (−3 SD) from the median are considered severely underweight.

Sample: Children under age 5

Overweight (assessed via weight-for-height)

Children whose weight-for-height *z* score is more than two standard deviations (+2 SD) above the median of the reference population are considered overweight.

Sample: Children under age 5

The 2024 ZDHS identified a total of 4,415 children under age 5 who were eligible for height and weight measurements in the 50% of households selected for anthropometry. The percentages with valid data for height-for-age, weight-for-height, and weight-for-age were 95%, 96%, and 96%, respectively (data not shown).

- Overall, 32% of children under age 5 are stunted (short for their age), and 10% are severely stunted (**Table 12**).
- Three percent of children under age 5 are wasted (thin for their height), 1% are severely wasted, and 4% are overweight.
- Twelve percent of children under age 5 are underweight, and 2% are severely underweight.

Table 12 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of child growth: height-for-age, weight-for-height, and weight-for-age, according to background characteristics, Zambia DHS 2024

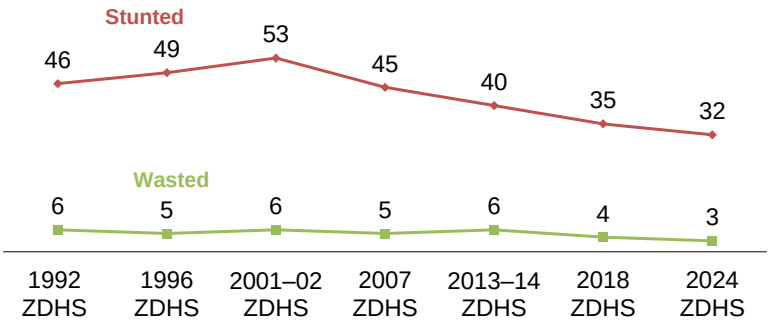
	Height-for-age[1]				Weight-for-height					Weight-for-age			
Background characteristic	Percentage below −3 SD	Percentage below −2 SD[2]	Mean *z* score (SD)	Number of children	Percentage below −3 SD	Percentage below −2 SD[2]	Percentage above +2 SD	Mean *z* score (SD)	Number of children	Percentage below −3 SD	Percentage below −2 SD[2]	Mean *z* score (SD)	Number of children
Age in months													
<6	5.4	16.2	−0.8	420	1.1	2.2	12.7	0.6	421	1.5	5.6	−0.1	426
6–11	4.7	20.1	−1.0	439	0.5	3.6	6.6	0.2	437	0.7	8.8	−0.5	439
12–23	10.8	38.1	−1.6	852	0.7	3.3	2.6	−0.1	857	2.7	15.3	−0.8	856
24–35	14.6	44.1	−1.8	793	0.5	2.5	3.8	0.1	804	3.2	15.6	−0.9	800
36–47	11.5	33.8	−1.6	848	0.4	1.6	2.0	0.0	852	1.7	11.2	−0.9	852
48–59	8.7	27.1	−1.4	775	0.3	2.1	2.4	−0.1	781	1.8	11.5	−1.0	784
0–23	7.9	28.1	−1.3	1,711	0.8	3.1	6.1	0.2	1,715	1.9	11.2	−0.6	1,721
24–59	11.6	35.0	−1.6	2,416	0.4	2.0	2.7	0.0	2,438	2.2	12.7	−0.9	2,436
Sex													
Male	12.5	34.8	−1.5	2,003	0.4	2.8	4.2	0.1	2,018	2.3	12.7	−0.8	2,020
Female	7.8	29.6	−1.4	2,124	0.7	2.2	4.0	0.0	2,135	1.9	11.6	−0.8	2,137
Mother's interview status													
Interviewed	9.7	31.6	−1.4	3,748	0.5	2.5	4.2	0.1	3,766	2.1	12.0	−0.8	3,778
Not interviewed but in household	6.5	32.2	−1.2	66	0.0	2.8	4.9	0.0	66	0.0	11.0	−0.7	67
Not interviewed, not in household[3]	14.8	38.1	−1.5	313	0.9	1.7	2.5	0.1	321	2.5	14.3	−0.8	313
Residence													
Urban	8.2	26.4	−1.3	1,679	0.3	2.3	4.7	0.1	1,688	1.1	9.5	−0.6	1,692
Rural	11.4	36.0	−1.5	2,448	0.7	2.6	3.7	0.0	2,465	2.8	13.9	−0.9	2,465
Province													
Central	9.5	28.2	−1.3	509	0.9	3.0	5.9	0.1	513	1.3	7.9	−0.7	514
Copperbelt[4]	12.8	30.5	−1.4	451	0.5	3.2	6.2	0.2	455	1.2	12.2	−0.7	461
Eastern	12.0	36.3	−1.6	535	0.0	0.9	4.8	0.2	544	3.5	12.4	−0.8	540
Luapula	17.7	45.3	−1.7	349	1.5	4.1	4.9	0.0	349	3.8	17.4	−1.0	353
Lusaka	5.8	20.1	−1.2	619	0.0	1.1	3.2	0.1	621	1.0	7.8	−0.6	620
Muchinga	11.6	42.9	−1.8	205	0.2	0.5	2.9	0.1	206	3.0	12.6	−0.9	206
Northern	14.2	42.6	−1.7	367	1.2	3.8	2.5	0.0	368	4.3	15.6	−1.0	369
North Western	8.0	35.3	−1.5	326	0.9	3.4	3.9	−0.0	326	2.6	15.1	−0.9	327
Southern	6.1	27.2	−1.2	513	0.4	2.6	2.3	−0.1	518	0.8	13.6	−0.7	514
Western	5.9	27.6	−1.3	253	0.4	2.7	4.0	−0.1	253	0.4	10.9	−0.8	253
Mother's education[5]													
No education	13.2	39.4	−1.7	302	0.9	2.1	3.9	0.0	304	4.2	15.2	−1.0	303
Primary	11.5	37.8	−1.6	1,724	0.6	2.9	4.0	0.0	1,738	2.8	14.5	−0.9	1,742
Secondary	7.9	25.7	−1.3	1,571	0.4	2.1	4.0	0.1	1,573	1.0	9.3	−0.7	1,581
Higher	3.6	15.3	−0.8	217	0.8	3.1	8.4	0.2	217	0.8	6.3	−0.3	218
Wealth quintile													
Lowest	13.4	40.3	−1.6	1,019	0.9	3.3	3.6	−0.0	1,020	3.5	16.0	−0.9	1,021
Second	11.3	38.3	−1.6	892	0.8	2.6	4.2	0.1	904	2.3	13.7	−0.9	903
Middle	10.7	30.5	−1.5	796	0.3	2.4	3.5	0.1	799	1.6	12.1	−0.8	804
Fourth	8.3	28.8	−1.4	768	0.5	1.7	3.8	0.1	777	2.1	10.5	−0.8	776
Highest	4.7	16.8	−0.9	652	0.1	2.1	6.0	0.2	653	0.1	5.6	−0.4	654
Total	10.1	32.1	−1.4	4,127	0.6	2.5	4.1	0.1	4,153	2.1	12.1	−0.8	4,157

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards.
[1] Recumbent length is measured for children under age 2; standing height is measured for all other children.
[2] Includes children who are below −3 SD from the WHO Child Growth Standards population median
[3] Includes children whose mothers are deceased
[4] Stunting and wasting estimates from Copperbelt province should be interpreted with caution because of data quality concerns
[5] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Trends: The percentage of children under age 5 who are stunted increased from 46% in 1992 to 53% in 2001–02 and has gradually decreased since, to 32% in 2024 (**Figure 7**). There has been little change in the percentage of children who are wasted (6% in 1992 and 3% in 2024) and overweight (5% in 1992 and 4% in 2024).

Figure 7 **Trends in nutritional status of children**

Percentage of children under age 5 who are malnourished



3.12 INFANT AND YOUNG CHILD FEEDING

Optimal infant and young child feeding (IYCF) practices are critical to the health and survival of young children. Recommended IYCF practices include early initiation of breastfeeding (within the first hour of life), exclusive breastfeeding for the first 6 months of life, and feeding children a diet that meets a minimum diversity standard (WHO and UNICEF 2021).

Early initiation of breastfeeding

Percentage of children born in the past 2 years who were put to the breast within 1 hour of birth.

Sample: Children born in the past 2 years

Exclusive breastfeeding under 6 months

Percentage of children age 0–5 months who were fed exclusively with breast milk during the previous day.

Sample: Youngest children age 0–5 months living with their mother

Minimum dietary diversity

Percentage of children age 6–23 months who were fed a minimum of five out of eight defined food groups during the previous day. The eight food groups are as follows: breast milk; grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, and cheese); flesh foods (meat, fish, poultry, and organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables.

Sample: Youngest children age 6–23 months living with their mother

Key IYCF indicators are presented in **Table 13**.

- Sixty-eight percent of children age 0–23 months were breastfed within 1 hour of birth.
- Twenty-two percent of children age 6–23 months are fed with a minimum dietary diversity.
- Sixty-four percent of children under age 6 months are exclusively breastfed.

Table 13 Infant and young child feeding (IYCF) indicators

Percentage of children fed according to various IYCF practices, Zambia DHS 2024

Indicator	Indicator numerator or denominator	Value
Early initiation of breastfeeding[1]	Percentage of children born in the past 2 years who were put to the breast within 1 hour of birth	68.0
	Number of children born in the past 2 years	3,517
Exclusive breastfeeding under 6 months	Percentage of children age 0–5 months who were fed exclusively with breast milk during the previous day	64.1
	Number of youngest children age 0–5 months living with their mother	844
Minimum dietary diversity 6–23 months	Percentage of children age 6–23 months who were fed foods and beverages from at least five out of eight defined food groups during the previous day	22.1
	Number of youngest children age 6–23 months living with their mother	2,474
Sweet beverage consumption 6–23 months	Percentage of children age 6–23 months who were given a sweet beverage during the previous day	25.9
	Number of youngest children age 6–23 months living with their mother	2,474
Unhealthy food consumption 6–23 months	Percentage of children age 6–23 months fed unhealthy foods during the previous day	14.0
	Number of youngest children age 6–23 months living with their mother	2,474

[1] Includes children born in the 2 years preceding the survey regardless of whether the children were living or dead at the time of the interview

Unhealthy infant and young child feeding practices should be avoided because they can promote unhealthy weight gain and replace nutritious foods that provide important nutrients for children. For infants and young children, consumption of sweet foods and beverages increases the risk of dental caries and childhood obesity. The indicator definition below for unhealthy food consumption describes sentinel unhealthy foods, foods high in sugar, salt, or unhealthy fats that are commonly consumed by infants and young children (WHO and UNICEF 2021).

Sweet beverage consumption

Percentage of children age 6–23 months who were given a sweet beverage during the previous day.

Unhealthy food consumption

Percentage of children age 6–23 months who were fed sentinel unhealthy foods during the previous day.

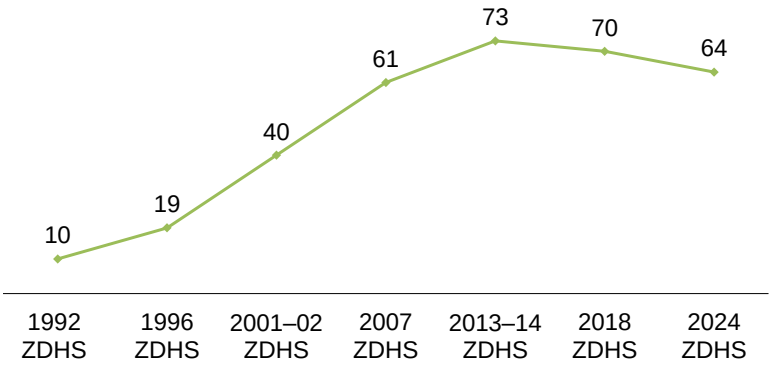
Sample: Youngest children age 6–23 months living with their mother

- Twenty-six percent of children age 6–23 months were fed a sweet beverage during the previous day.
- Fourteen percent of children age 6–23 months consumed unhealthy foods during the previous day.

Trends: The percentage of children age 0–5 months who are exclusively breastfed rose steadily from 10% in 1992 to 73% in 2013–14 but has since gradually decreased to 64% (**Figure 8**).

Figure 8 **Trends in exclusive breastfeeding**

Percentage of children age 0–5 months



3.13 MALARIA

3.13.1 Ownership and Use of Insecticide-treated Nets

Insecticide-treated nets (ITNs) repel and kill mosquitoes, thus providing protection against mosquito bites and reducing the transmission of malaria parasites. When high coverage of ITNs is achieved, ITNs help decrease malaria risk at the individual level as well as at the community level by reducing the vector population. The distribution and use of ITNs is one of the core interventions for preventing malaria infection in Zambia.

Ownership of insecticide-treated nets

Households that have at least one insecticide-treated net (ITN). An ITN is a factory-treated net that does not require any further treatment.

Sample: Households

Full household ITN coverage

Percentage of households with at least one ITN for every two people.

Sample: Households (with at least one person who stayed in the household the night before the survey)

Table 14 presents information on household ownership of ITNs.

- Seventy-eight percent of households own at least one ITN (89% of rural households and 66% of urban households). Households own an average of 2.1 ITNs.
- Fifty-five percent of households have full ITN coverage (63% of rural households and 47% of urban households).

Table 14 Household possession of insecticide-treated nets

Percentage of households with at least one insecticide-treated net (ITN), average number of ITNs per household, and percentage of households with at least one ITN per two persons who stayed in the household last night, according to background characteristics, Zambia DHS 2024

Background characteristic	Percentage of households with at least one ITN[1]	Average number of ITNs[1] per household	Number of households	Percentage of households with at least one ITN[1] for every two persons who stayed in the household last night[2]	Number of households with at least one person who stayed in the household last night
Residence					
Urban	65.5	1.7	6,127	46.6	6,125
Rural	88.5	2.4	6,681	63.0	6,674
Province					
Central	86.4	2.5	1,427	65.5	1,427
Copperbelt	77.4	2.1	1,838	58.4	1,836
Eastern	93.5	2.4	1,540	64.1	1,538
Luapula	91.6	2.6	967	68.7	967
Lusaka	37.3	0.8	2,302	21.6	2,302
Muchinga	81.9	2.1	625	57.5	625
Northern	92.6	2.6	999	66.6	999
North Western	79.4	2.1	824	52.8	823
Southern	87.8	2.4	1,486	62.0	1,485
Western	86.3	2.4	800	66.0	799
Wealth quintile					
Lowest	86.8	2.1	2,664	60.6	2,664
Second	88.3	2.4	2,360	62.3	2,357
Middle	84.7	2.4	2,413	60.2	2,411
Fourth	67.4	1.8	2,725	48.3	2,722
Highest	62.2	1.7	2,646	45.9	2,646
Total	77.5	2.1	12,808	55.2	12,800

[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2013–14 ZDHS, this was known as a long-lasting insecticidal net (LLIN).
[2] De facto household members

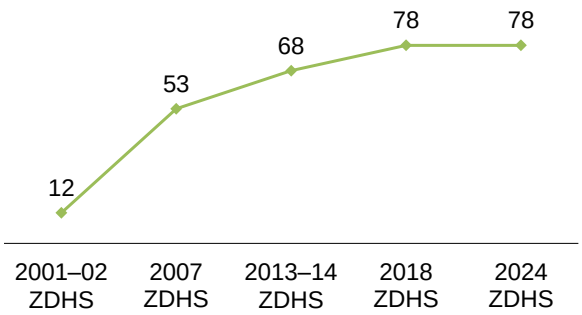
Trends: The percentage of households that own at least one ITN increased from 12% in 2001–02 to 78% in both 2018 and 2024 (**Figure 9**). In urban areas, there has been a decrease in ITN ownership since 2018, from 73% to 66%. Conversely, rural areas have seen a substantial increase in ITN ownership over the same period, from 82% to 89%.

ITNs act as both a physical and a chemical barrier against mosquitoes. By reducing the vector population, ITNs can help reduce malaria risk at the community level as well as among individuals who use them. **Table 15** presents data on use of ITNs by children under age 5 and by pregnant women.

- Sixty-six percent of children under age 5 slept under an ITN the night before the survey.

Figure 9 **Trends in household ownership of ITNs**

Percentage of households owning at least one insecticide-treated net (ITN)



Note: An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2013–14 ZDHS, this was known as a long-lasting insecticidal net (LLIN).

- The percentage of children under age 5 who slept under an ITN the night before the survey is higher in rural areas (74%) than in urban areas (56%).
- Overall, 71% of pregnant women age 15–49 slept under an ITN the night before the survey.
- A higher percentage of pregnant women in rural households (80%) than urban households (58%) slept under an ITN the night before the survey.

Table 15 Use of insecticide-treated nets by children and pregnant women

Percentage of children under age 5 who slept under an insecticide-treated net (ITN) the night before the survey; among children under age 5 in households with at least one ITN, percentage who slept under an ITN the night before the survey; percentage of pregnant women age 15–49 who slept under an ITN the night before the survey; and among pregnant women age 15–49 in households with at least one ITN, percentage who slept under an ITN the night before the survey, according to background characteristics, Zambia DHS 2024

	Children under age 5 in all households		Children under age 5 in households with at least one ITN[1]		Pregnant women age 15–49 in all households		Pregnant women age 15–49 in households with at least one ITN[1]	
Background characteristic	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of pregnant women	Percentage who slept under an ITN[1] last night	Number of pregnant women
Residence								
Urban	55.5	3,506	79.3	2,453	58.2	404	84.9	277
Rural	73.5	5,250	81.4	4,741	80.0	528	87.0	486
Province								
Central	75.6	1,038	83.9	936	84.9	121	90.6	113
Copperbelt	65.8	1,007	79.3	835	61.7	120	81.8	91
Eastern	81.1	1,100	84.7	1,053	92.5	109	92.5	109
Luapula	79.6	739	85.2	691	85.7	84	92.2	78
Lusaka	31.4	1,296	76.1	535	29.4	141	(78.6)	53
Muchinga	67.4	474	81.3	393	77.5	58	87.0	52
Northern	76.8	774	81.9	726	79.3	82	83.7	78
North Western	63.6	670	78.3	545	64.7	72	79.3	59
Southern	67.8	1,126	74.8	1,022	75.7	93	83.3	84
Western	68.9	532	79.9	459	76.1	51	85.2	46
Wealth quintile								
Lowest	74.7	2,153	84.4	1,906	82.2	226	88.5	209
Second	72.1	1,881	80.2	1,690	79.0	201	87.2	182
Middle	69.5	1,713	78.7	1,513	76.0	179	87.3	156
Fourth	58.3	1,669	80.3	1,212	55.6	199	80.9	137
Highest	50.7	1,339	77.7	873	52.0	127	85.0	78
Total	66.3	8,756	80.7	7,194	70.5	932	86.2	762

Note: Table is based on children and pregnant women who stayed in the household the night before the interview. Figures in parentheses are based on 25–49 unweighted cases.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In the 2013–14 ZDHS, this was known as a long-lasting insecticidal net (LLIN).

3.13.2 Malaria in Pregnancy

Intermittent preventive treatment (IPTp) during pregnancy

Percentage of women who took at least three doses of sulfadoxine-pyrimethamine (SP)/Fansidar during their most recent pregnancy.

Sample: Women age 15–49 with a live birth or a stillbirth in the 2 years before the survey

Malaria infection during pregnancy is a major public health problem in Zambia, with substantial risks for the mother, her foetus, and the neonate. Intermittent preventive treatment of malaria in pregnancy (IPTp) is a full therapeutic course of antimalarial medicine given to pregnant women at routine antenatal care visits to prevent malaria. IPTp helps prevent maternal malaria episodes, maternal and foetal anaemia, placental parasitaemia, low birth weight, and neonatal mortality.

Table 16 presents data on use of IPTp by women during pregnancy.

- Overall, 70% of women age 15–49 with a live birth in the 2 years preceding the survey received three or more doses of IPTp.

Table 16 Use of intermittent preventive treatment (IPTp) by women during pregnancy

Percentage of women age 15–49 with a live birth and/or a stillbirth in the 2 years preceding the survey who received one or more doses of SP/Fansidar, received two or more doses of SP/Fansidar, and received three or more doses of SP/Fansidar during the pregnancy that resulted in the most recent live birth or stillbirth, according to background characteristics, Zambia DHS 2024

Background characteristic	Percentage who received one or more doses of SP/Fansidar	Percentage who received two or more doses of SP/Fansidar	Percentage who received three or more doses of SP/Fansidar	Number of women with a live birth and/or a stillbirth in the 2 years preceding the survey
LIVE BIRTHS				
Residence				
Urban	93.1	84.9	70.8	1,370
Rural	94.6	84.2	68.8	2,061
Province				
Central	94.0	83.0	65.3	411
Copperbelt	94.4	90.1	77.0	375
Eastern	95.3	89.8	82.0	441
Luapula	98.3	93.8	81.7	295
Lusaka	90.9	79.4	62.2	511
Muchinga	98.7	93.9	80.5	179
Northern	93.7	86.0	76.7	320
North Western	93.1	83.1	68.5	257
Southern	93.3	76.5	54.5	445
Western	90.8	73.0	52.1	197
Education				
No education	92.9	81.6	63.7	256
Primary	93.1	83.0	67.0	1,542
Secondary	95.1	86.3	72.5	1,442
Higher	94.4	86.8	76.9	190
Wealth quintile				
Lowest	94.1	84.1	67.7	849
Second	95.1	85.3	69.6	725
Middle	94.0	84.1	69.3	680
Fourth	92.9	82.7	68.9	674
Highest	93.6	86.8	74.2	502
Total	94.0	84.5	69.6	3,431
STILLBIRTHS				
Total	91.7	73.7	52.0	49
LIVE BIRTHS AND STILLBIRTHS[1]				
Total	93.9	84.4	69.4	3,469

Note: Stillbirths are foetal deaths in pregnancies lasting 28 or more weeks. When pregnancy duration is reported in months, stillbirths are foetal deaths in pregnancies lasting 7 or more months.
[1] For women who had both a live birth and a stillbirth in the 2 years preceding the survey, data are tabulated for the most recent birth only.

3.13.3 Case Management of Malaria in Children

Care seeking for children under age 5 with a fever

Percentage of children under age 5 with a fever in the 2 weeks before the survey for whom advice or treatment was sought from a health provider, a health facility, or a pharmacy.

Sample: Children under age 5 with a fever in the 2 weeks before the survey

Diagnosis of malaria in children under age 5 with a fever

Percentage of children under age 5 with a fever in the 2 weeks before the survey who had blood taken from a finger or heel for testing. This is a proxy measure of diagnostic testing for malaria.

Sample: Children under age 5 with a fever in the 2 weeks before the survey

Artemisinin-based combination therapy (ACT) for children under age 5 with a fever

Percentage of children under age 5 with a fever in the 2 weeks before the survey who took ACT.

Sample: Children under age 5 with a fever in the 2 weeks before the survey who took any antimalarial drug

Table 17 presents data on children with fever and care seeking for, diagnosis of, and treatment of fever.

- Overall, 18% of children under age 5 had a fever in the 2 weeks before the survey.
- Among children with a fever, 80% were taken for advice or treatment and 69% had blood taken for testing.
- Among children with a fever who took any antimalarial drug, 98% took ACT.

Trends: Among children with a fever who took any antimalarial drug, the percentage who took ACT increased drastically from 29% in 2007 to 98% in 2024.

Table 17 Children with fever and care seeking for, diagnosis of, and treatment of fever

Percentage of children under age 5 with a fever in the 2 weeks preceding the survey; among children under age 5 with fever, percentage for whom advice or treatment was sought and percentage who had blood taken from a finger or heel for testing; and among children under age 5 with fever who took any antimalarial drug, percentage who took artemisinin-based combination therapy (ACT), according to background characteristics, Zambia DHS 2024

	Children under age 5		Children under age 5 with fever			Children under age 5 with fever who took any antimalarial drug	
Background characteristic	Percentage with a fever in the 2 weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage who had blood taken from a finger or heel for testing	Number of children	Percentage who took ACT	Number of children
Residence							
Urban	14.6	3,287	78.9	60.1	480	93.7	132
Rural	20.7	4,848	80.9	73.2	1,004	99.1	506
Province							
Central	24.0	960	86.1	69.9	230	97.8	85
Copperbelt	22.4	943	78.2	59.6	211	96.0	80
Eastern	15.8	1,026	85.2	79.8	162	100.0	63
Luapula	24.0	688	84.6	86.0	165	99.3	123
Lusaka	8.7	1,214	76.3	38.3	105	*	9
Muchinga	17.2	442	83.4	76.6	76	100.0	45
Northern	18.4	719	76.5	71.4	132	100.0	67
North Western	21.2	626	91.8	84.4	133	99.4	100
Southern	11.6	1,036	58.8	49.0	120	*	2
Western	30.9	482	75.3	68.1	149	95.4	64
Wealth quintile							
Lowest	20.4	2,033	78.4	74.0	415	98.6	220
Second	21.8	1,720	81.4	74.9	375	99.2	200
Middle	20.0	1,579	84.3	67.4	316	98.2	140
Fourth	14.7	1,553	77.4	60.0	228	97.4	59
Highest	12.0	1,250	78.2	57.0	150	*	19
Total	18.2	8,135	80.2	69.0	1,484	98.0	638

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes advice or treatment from the following sources: public medical sector, private medical sector, nongovernmental organisation medical sector, shop, market, and itinerant drug seller. Excludes advice or treatment from a traditional practitioner.

3.14 HIV

3.14.1 Prevention Knowledge among Young People

Knowledge about HIV prevention

Knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting two major misconceptions about HIV transmission: HIV can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has HIV.

Sample: Women and men age 15–24

Knowledge of how HIV is transmitted is crucial in enabling people to avoid HIV infection, and this is especially true for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviours.

- Overall, 42% of young women and 43% of young men age 15–24 have knowledge of HIV prevention (**Table 18**).
- HIV knowledge is higher among both young women (51%) and young men (50%) who live in urban areas than among those who live in rural areas (33% and 38%, respectively).

Table 18 Knowledge about HIV prevention methods among young people

Percentage of young women and young men age 15–24 with knowledge about HIV prevention, according to background characteristics, Zambia DHS 2024

Background characteristic	Women age 15–24		Men age 15–24	
	Percentage with knowledge about HIV prevention[1]	Number of women	Percentage with knowledge about HIV prevention[1]	Number of men
Age				
15–19	38.2	3,292	40.4	3,002
15–17	35.9	2,030	37.0	1,857
18–19	42.0	1,262	45.9	1,144
20–24	46.6	2,540	47.2	2,096
20–22	48.6	1,489	47.1	1,224
23–24	43.6	1,051	47.3	872
Marital status				
Never married	44.1	3,891	43.4	4,517
Ever had sex	46.2	2,168	44.3	2,948
Never had sex	41.5	1,723	41.8	1,569
Ever married	37.4	1,941	41.1	581
Residence				
Urban	50.5	2,872	50.2	2,239
Rural	33.4	2,961	37.6	2,859
Province				
Central	49.0	683	45.9	633
Copperbelt	49.3	833	53.9	678
Eastern	28.1	711	45.4	673
Luapula	44.7	457	36.1	382
Lusaka	53.7	976	41.2	760
Muchinga	39.5	274	47.9	242
Northern	29.9	458	37.7	389
North Western	33.5	391	46.8	353
Southern	38.1	692	37.5	634
Western	35.8	358	34.4	355
Education				
No education	20.8	201	33.1	182
Primary	28.1	2,124	31.3	2,048
Secondary	50.5	3,333	51.3	2,743
Higher	69.4	173	73.6	125
Wealth quintile				
Lowest	28.6	1,080	35.9	891
Second	31.8	993	35.9	1,030
Middle	39.1	1,153	41.6	1,134
Fourth	48.1	1,313	46.4	1,042
Highest	56.7	1,292	55.5	1,001
Total	41.9	5,833	43.1	5,098

[1] Knowledge about HIV prevention means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting two common misconceptions about transmission or prevention of HIV: HIV can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has HIV.

3.14.2 Sexual Behaviour

Information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of HIV.

- Overall, 23% of women and 41% of men age 15–49 have had intercourse in the past 12 months with a person who neither was their spouse nor lived with them (**Table 19.1** and **Table 19.2**).
- Among respondents who had intercourse in the past 12 months with a person who neither was their spouse nor lived with them, 33% of women and 56% of men reported using a condom during their most recent sexual intercourse with such a partner.

Table 19.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among all women age 15–49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months and percentage who had intercourse in the past 12 months with a person who neither was their husband nor lived with them; among women having more than one partner in the past 12 months, percentage reporting that a condom was used during most recent intercourse; among women who had sexual intercourse in the past 12 months with a person who neither was their husband nor lived with them, percentage who used a condom during most recent sexual intercourse with such a partner; and among women who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Zambia DHS 2024

	All women			Women who had 2+ partners in the past 12 months		Women who had intercourse in the past 12 months with a person who neither was their husband nor lived with them		Women who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had inter-course in the past 12 months with a person who neither was their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual intercourse	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women	Mean number of sexual partners in lifetime	Number of women
Age									
15–24	3.7	31.8	5,833	28.2	218	34.1	1,853	2.1	4,106
15–19	3.2	31.9	3,292	31.4	105	35.0	1,050	1.8	1,765
20–24	4.5	31.6	2,540	25.1	113	32.8	803	2.3	2,341
25–29	3.5	23.0	2,255	27.6	78	35.1	518	2.6	2,210
30–39	3.0	16.0	3,523	21.3	106	32.6	563	2.6	3,498
40–49	2.1	12.7	2,340	13.5	50	26.1	296	2.6	2,331
Marital status									
Never married	4.1	46.2	4,732	43.0	195	34.9	2,188	2.4	2,939
Married/living together	1.9	1.9	7,407	3.1	137	45.7	142	2.2	7,401
Divorced/separated/ widowed	6.7	49.7	1,812	20.3	121	27.2	900	3.2	1,805
Residence									
Urban	3.3	25.1	7,082	30.7	236	37.0	1,779	2.6	5,910
Rural	3.2	21.1	6,869	18.5	217	28.6	1,451	2.2	6,235
Province									
Central	4.7	21.4	1,578	24.7	74	38.0	338	2.3	1,387
Copperbelt	2.5	19.6	2,041	(22.1)	52	36.8	400	2.1	1,670
Eastern	4.0	23.1	1,628	23.5	65	30.8	376	2.2	1,492
Luapula	1.7	16.3	1,044	*	17	29.5	170	2.1	891
Lusaka	2.7	25.0	2,611	(30.6)	70	36.0	652	2.6	2,200
Muchinga	3.4	14.1	619	(32.6)	21	29.1	87	2.5	540
Northern	1.6	12.5	1,049	*	16	27.5	131	1.7	885
North Western	2.8	27.5	913	(26.8)	26	33.0	251	2.7	820
Southern	5.0	30.3	1,630	14.4	81	34.9	495	2.8	1,492
Western	3.7	39.3	838	(34.9)	31	24.2	329	3.1	765
Education									
No education	3.4	14.5	908	(15.0)	31	20.0	132	2.3	868
Primary	3.3	18.6	5,480	16.3	180	27.2	1,020	2.3	4,917
Secondary	3.3	27.3	6,485	31.6	212	35.8	1,769	2.5	5,366
Higher	2.7	28.7	1,079	(39.0)	29	44.1	309	2.7	993
Wealth quintile									
Lowest	2.9	19.6	2,434	19.5	70	20.8	477	2.2	2,258
Second	3.3	21.2	2,406	17.9	79	27.3	510	2.3	2,194
Middle	4.3	25.5	2,660	21.0	114	33.0	678	2.4	2,376
Fourth	3.0	24.3	3,118	37.1	93	38.4	759	2.5	2,679
Highest	2.9	24.2	3,332	27.2	96	39.7	806	2.6	2,638
Total	3.2	23.2	13,951	24.8	453	33.2	3,230	2.4	12,145

Note: Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 19.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15–49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months and percentage who had intercourse in the past 12 months with a person who neither was their wife nor lived with them; among men having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among men age 15–49 who had sexual intercourse in the past 12 months with a person who neither was their wife nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among men who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Zambia DHS 2024

	All men			Men who had 2+ partners in the past 12 months		Men who had intercourse in the past 12 months with a person who neither was their wife nor lived with them		Men who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had inter-course in the past 12 months with a person who neither was their wife nor lived with them	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men	Mean number of sexual partners in lifetime	Number of men
Age									
15–24	18.0	50.0	5,098	41.5	917	53.2	2,547	4.9	3,520
15–19	12.2	40.6	3,002	40.5	367	47.4	1,219	3.7	1,586
20–24	26.3	63.4	2,096	42.1	551	58.4	1,328	6.0	1,934
25–29	26.6	47.9	1,637	30.4	435	60.6	785	7.6	1,581
30–39	24.1	30.9	2,714	19.1	654	57.8	838	7.9	2,653
40–49	22.2	23.6	1,978	14.0	439	56.4	466	7.9	1,944
Marital status									
Never married	17.5	55.7	5,498	49.8	963	55.3	3,061	5.5	3,840
Married/living together	24.7	22.1	5,422	11.2	1,341	57.4	1,200	7.2	5,358
Divorced/separated/ widowed	28.1	74.0	506	48.8	142	51.8	375	12.2	499
Type of union									
In polygynous union	82.7	27.3	304	5.3	251	42.4	83	9.4	304
Not in polygynous union	21.3	21.8	5,118	12.5	1,089	58.5	1,117	7.1	5,054
Not currently in union	18.4	57.2	6,004	49.7	1,105	54.9	3,436	6.3	4,339
Residence									
Urban	16.4	37.5	5,313	39.1	871	65.6	1,991	6.9	4,284
Rural	25.8	43.3	6,114	22.8	1,574	48.1	2,644	6.7	5,413
Province									
Central	27.2	45.9	1,385	22.0	376	55.8	635	6.6	1,208
Copperbelt	11.0	29.3	1,614	47.8	178	66.9	472	6.0	1,239
Eastern	29.5	47.7	1,477	24.8	436	53.1	705	6.0	1,343
Luapula	12.4	30.3	821	23.7	102	51.0	249	6.7	687
Lusaka	13.1	35.0	1,935	42.1	253	68.6	678	7.4	1,523
Muchinga	12.9	30.2	537	31.4	69	59.1	162	5.3	435
Northern	17.9	30.2	845	20.5	152	47.2	255	6.1	724
North Western	19.6	44.1	760	26.1	149	49.8	335	8.4	692
Southern	34.6	50.6	1,363	25.2	472	52.3	691	6.9	1,210
Western	37.6	65.9	688	31.8	259	43.2	453	8.8	637
Education									
No education	21.7	40.1	472	14.5	102	35.7	189	6.2	408
Primary	24.5	41.7	4,219	22.4	1,032	45.4	1,758	7.0	3,551
Secondary	20.5	41.0	5,708	33.7	1,172	62.3	2,339	6.8	4,776
Higher	13.7	34.0	1,027	41.7	140	72.9	350	6.4	962
Wealth quintile									
Lowest	25.2	40.9	2,050	20.4	517	42.5	839	6.5	1,852
Second	27.6	45.1	2,185	24.5	603	45.8	985	7.1	1,934
Middle	23.0	43.2	2,307	24.4	531	52.6	996	6.9	1,993
Fourth	18.2	38.6	2,426	31.7	443	63.8	936	6.8	2,007
Highest	14.3	35.8	2,457	50.2	352	73.6	880	6.6	1,912
Total 15–49	21.4	40.6	11,426	28.6	2,446	55.6	4,636	6.8	9,697
50–59	18.2	18.2	1,159	13.6	210	58.3	211	9.6	1,144
Total 15–59	21.1	38.5	12,585	27.4	2,656	55.7	4,847	7.1	10,841

[1] Means are calculated excluding respondents who gave non-numeric responses.

3.14.3 Prior HIV Testing

HIV testing programmes diagnose people living with HIV so that they can be linked to care and access antiretroviral therapy (ART). Knowledge of HIV status helps HIV-negative individuals reduce risk and remain negative.

- Overall, 83% of women age 15–49 have ever been tested for HIV and received the results of the test (**Table 20.1**). Sixteen percent have never been tested. Seventy-one percent of men age 15–49 have been tested for HIV and received the results of the test (**Table 20.2**). Twenty-eight percent have never been tested.

Table 20.1 Coverage of prior HIV testing: Women

Percent distribution of women age 15–49 by HIV testing status and by whether they received the results of the last test, percentage of women ever tested, and percentage of women who were tested in the past 12 months and received the results of the last test, according to background characteristics, Zambia DHS 2024

Background characteristic	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age							
15–24	65.9	1.6	32.5	100.0	67.5	42.6	5,833
15–19	47.9	1.4	50.7	100.0	49.3	31.2	3,292
20–24	89.2	1.9	8.9	100.0	91.1	57.4	2,540
25–29	96.3	0.7	3.0	100.0	97.0	61.9	2,255
30–39	96.5	0.9	2.6	100.0	97.4	58.1	3,523
40–49	93.9	1.5	4.7	100.0	95.3	44.7	2,340
Marital status							
Never married	60.7	1.2	38.2	100.0	61.8	38.6	4,732
Ever had sex	78.7	1.3	20.0	100.0	80.0	53.1	2,951
Never had sex	30.8	1.0	68.2	100.0	31.8	14.6	1,782
Married or living together	94.8	1.3	3.9	100.0	96.1	57.1	7,407
Divorced/separated/ widowed	94.7	1.4	3.8	100.0	96.2	50.7	1,812
Residence							
Urban	84.0	1.0	15.0	100.0	85.0	50.8	7,082
Rural	82.4	1.6	16.0	100.0	84.0	49.2	6,869
Province							
Central	84.9	1.2	13.9	100.0	86.1	55.6	1,578
Copperbelt	82.0	1.6	16.4	100.0	83.6	44.9	2,041
Eastern	81.0	1.3	17.7	100.0	82.3	45.0	1,628
Luapula	79.7	1.3	19.0	100.0	81.0	47.2	1,044
Lusaka	85.9	0.7	13.4	100.0	86.6	53.9	2,611
Muchinga	81.5	0.8	17.8	100.0	82.2	42.5	619
Northern	74.5	2.6	22.9	100.0	77.1	37.6	1,049
North Western	81.3	0.9	17.9	100.0	82.1	40.6	913
Southern	88.2	1.1	10.8	100.0	89.2	62.7	1,630
Western	88.1	1.8	10.1	100.0	89.9	59.3	838
Education							
No education	83.3	2.9	13.8	100.0	86.2	43.3	908
Primary	81.5	1.4	17.1	100.0	82.9	46.4	5,480
Secondary	82.5	1.0	16.5	100.0	83.5	52.0	6,485
Higher	96.4	0.7	2.9	100.0	97.1	61.6	1,079
Wealth quintile							
Lowest	81.6	2.2	16.2	100.0	83.8	45.5	2,434
Second	83.0	1.5	15.5	100.0	84.5	49.3	2,406
Middle	83.8	1.0	15.2	100.0	84.8	52.2	2,660
Fourth	84.9	1.0	14.2	100.0	85.8	52.4	3,118
Highest	82.5	1.0	16.5	100.0	83.5	49.8	3,332
Total	83.2	1.3	15.5	100.0	84.5	50.0	13,951

[1] Includes respondents who refused to answer questions on testing

Table 20.2 Coverage of prior HIV testing: Men

Percent distribution of men age 15–49 by HIV testing status and by whether they received the results of the last test, percentage of men ever tested, and percentage of men who were tested in the past 12 months and received the results of the last test, according to background characteristics, Zambia DHS 2024

Background characteristic	Percent distribution of men by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age							
15–24	47.2	1.1	51.7	100.0	48.3	27.2	5,098
15–19	29.4	1.0	69.6	100.0	30.4	16.3	3,002
20–24	72.6	1.3	26.0	100.0	74.0	42.8	2,096
25–29	87.4	1.5	11.1	100.0	88.9	51.8	1,637
30–39	90.9	1.7	7.4	100.0	92.6	51.3	2,714
40–49	90.2	2.2	7.6	100.0	92.4	47.3	1,978
Marital status							
Never married	48.8	1.2	50.0	100.0	50.0	27.4	5,498
Ever had sex	58.5	1.4	40.1	100.0	59.9	34.2	3,860
Never had sex	25.8	0.9	73.3	100.0	26.7	11.4	1,638
Married or living together	91.4	1.8	6.7	100.0	93.3	51.6	5,422
Divorced/separated/ widowed	88.3	1.4	10.3	100.0	89.7	49.6	506
Residence							
Urban	73.7	1.3	25.1	100.0	74.9	40.8	5,313
Rural	68.2	1.7	30.0	100.0	70.0	39.2	6,114
Province							
Central	74.4	1.3	24.3	100.0	75.7	44.0	1,385
Copperbelt	67.4	1.2	31.4	100.0	68.6	35.9	1,614
Eastern	69.0	1.5	29.5	100.0	70.5	35.1	1,477
Luapula	67.0	1.3	31.6	100.0	68.4	33.9	821
Lusaka	78.0	1.5	20.5	100.0	79.5	42.3	1,935
Muchinga	64.3	0.9	34.8	100.0	65.2	32.5	537
Northern	65.2	1.8	33.0	100.0	67.0	33.1	845
North Western	61.3	1.8	36.9	100.0	63.1	31.9	760
Southern	74.1	2.4	23.5	100.0	76.5	53.2	1,363
Western	75.0	1.0	24.0	100.0	76.0	48.2	688
Education							
No education	55.1	2.1	42.8	100.0	57.2	29.3	472
Primary	62.3	1.8	35.9	100.0	64.1	33.8	4,219
Secondary	74.5	1.3	24.1	100.0	75.9	42.7	5,708
Higher	91.8	1.2	7.1	100.0	92.9	54.2	1,027
Wealth quintile							
Lowest	68.6	1.8	29.6	100.0	70.4	38.0	2,050
Second	66.8	2.2	31.0	100.0	69.0	37.0	2,185
Middle	68.3	1.2	30.5	100.0	69.5	41.0	2,307
Fourth	73.4	1.3	25.3	100.0	74.7	41.2	2,426
Highest	75.8	1.2	23.0	100.0	77.0	41.8	2,457
Total 15–49	70.8	1.5	27.7	100.0	72.3	39.9	11,426
50–59	86.8	2.6	10.6	100.0	89.4	42.9	1,159
Total 15–59	72.2	1.6	26.1	100.0	73.9	40.2	12,585

[1] Includes respondents who refused to answer questions on testing

3.15 MATERNAL MORTALITY

3.15.1 Direct Estimates of Maternal Mortality

Maternal mortality rate

The number of maternal deaths per 1,000 women age 15–49. Maternal mortality rates by 5-year age groups are calculated by dividing the number of maternal deaths to female siblings of respondents in each age group by the total person-years of exposure of the sisters to the risk of dying in that age group during the 7 years preceding the survey. The number of deaths is the number of sisters reported as having died in the 7 years preceding the survey during either pregnancy or delivery, or in the 42 days following the delivery or termination of a pregnancy, by their age group at the time of death. Deaths due to accidents or violence are excluded. The person-years of exposure in each age group are calculated for both surviving and dead sisters based on their reported current age (living sisters) or age at death and years since death (dead sisters).

Sample: Sisters (both living and dead) age 15–49 in the 7 years preceding the survey, by 5-year age groups

Maternal mortality ratio

The number of maternal deaths per 100,000 live births. The maternal mortality ratio is calculated by dividing the age-standardised maternal mortality rate for women age 15–49 in the 7 years preceding the survey by the general fertility rate (GFR) for the same time period.

Maternal deaths are a subset of all female deaths. They are defined as any deaths that occur during pregnancy or childbirth or within 42 days after the delivery or termination of a pregnancy. Maternal deaths do not include deaths due to accidents or violence. Two methods are generally used to estimate maternal mortality in developing countries: the indirect sisterhood method (Graham et al. 1989) and a direct variant of the sisterhood method (Rutenberg and Sullivan 1991; Stanton et al. 1997).

- The rate of mortality associated with pregnancy and childbearing in Zambia was 0.26 maternal deaths per 1,000 woman-years of exposure in the 7 years preceding the survey (**Table 21**).
- The estimated age-specific mortality rate is highest among women age 45–49 (0.53) and lowest among women age 15–19 (0.05).
- Maternal deaths represent 10% of all deaths among women age 15–49 during the 7-year period preceding the survey.
- Only 42 maternal deaths were recorded in the 7 years preceding the 2024 ZDHS, so the results should be interpreted with some caution.

Table 21 Maternal mortality

Direct estimates of maternal mortality rates for the 7 years preceding the survey, by 5-year age groups, Zamba DHS 2024

Age	Percentage of female deaths that are maternal	Maternal deaths[1]	Exposure years	Maternal mortality rate[2]
15–19	5.2	2	30,806	0.05
20–24	18.7	9	32,943	0.29
25–29	11.6	7	29,880	0.24
30–34	10.8	8	25,956	0.33
35–39	7.2	5	20,193	0.26
40–44	9.1	6	13,406	0.42
45–49	8.3	4	8,012	0.53
Total	10.2	42	161,196	0.26[a]

[1] A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause except accidents or violence.
[2] Expressed per 1,000 woman-years of exposure
[a] Age-adjusted rate

- The maternal mortality ratio for the 7-year period before the 2024 ZDHS was 187 maternal deaths per 100,000 live births; that is, for every 1,000 births in Zambia, about two women die during pregnancy, childbirth, or within 42 days of the end of a pregnancy from causes other than accidents or violence (**Table 22**). The confidence interval surrounding the maternal mortality estimate is 119 to 255 deaths per 100,000 live births.

Table 22 Maternal mortality ratio

Total fertility rate, general fertility rate, maternal mortality ratio, and lifetime risk of maternal death for the 7 years preceding the survey, Zamba DHS 2024

Total fertility rate (TFR)	4.3
General fertility rate (GFR)[1]	137
Maternal mortality ratio (MMR)[2]	187 (CI: 119, 255)
Lifetime risk of maternal death[3]	0.008

CI: confidence interval
[1] Age-adjusted rate expressed per 1,000 women age 15–49
[2] Expressed per 100,000 live births; calculated as the age-adjusted maternal mortality rate (shown in Table 21) times 100 divided by the age-adjusted general fertility rate
[3] Calculated as $1-(1-MMR)^{TFR}$, where TFR represents the total fertility rate for the 7 years preceding the survey

3.15.2 Trends in Pregnancy-related Mortality

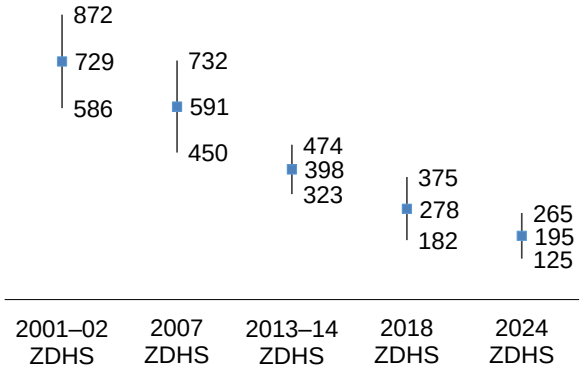
To allow comparisons with estimates from previous ZDHS surveys, the 2024 ZDHS defines a pregnancy-related death as the death of a woman during pregnancy or childbirth or within 2 months of delivery or termination of a pregnancy, irrespective of the cause of death. Estimates of pregnancy-related mortality are therefore based solely on the timing of the death in relationship to the pregnancy. Note that this definition varies from the WHO definition of a pregnancy-related death, which limits the window to 42 days. What the 2024 ZDHS defines as a pregnancy-related death had been labelled a maternal death in the 2001–02 ZDHS, the 2007 ZDHS, and the 2013–14 ZDHS.

- The estimated pregnancy-related mortality ratio (PRMR) for the 7-year period preceding the 2024 ZDHS is 195 deaths per 100,000 live births; that is, for every 1,000 births in Zambia, about two women die during pregnancy or within 2 months of the end of a pregnancy from any cause, including accidents or violence (**Figure 10**).

- Only 44 pregnancy-related deaths were recorded in the 7 years preceding the 2024 ZDHS, so the results should be interpreted with some caution.

Trends: There has been an overall downward trend in the PRMR since the 7 years preceding the 2001–02 ZDHS. However, the confidence intervals surrounding the 2018 ZDHS and 2024 ZDHS PRMR estimates overlap, indicating that there is no statistically significant difference between the estimates in these two surveys (**Figure 10**).

Figure 10 **Trends in the pregnancy-related mortality ratio (PRMR) with confidence intervals**



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