

# TECHNICAL NOTES

## 2022 National Demographic and Health Survey

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### I. Introduction

#### a. Background

The 2022 Philippine National Demographic and Health Survey (NDHS) is the seventh Demographic and Health Survey (DHS) conducted in the Philippines in collaboration with the worldwide Demographic and Health Surveys Program, and the 12th in a series of national DHS conducted every five years since 1968.

The 2022 NDHS was implemented by the Philippine Statistics Authority (PSA). ICF provided technical assistance through The DHS Program, 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.

#### b. Objectives

The primary objective of the 2022 NDHS is to provide up-to-date estimates of basic demographic and health indicators. Specifically, it gathers information to provide indicators on fertility, fertility preferences, family planning practice, childhood mortality, maternal and child health, nutrition, knowledge and attitudes regarding HIV/AIDS, violence against women, child discipline, early childhood development, and other health issues. These indicators are crucial in policymaking, program planning, and monitoring and evaluation of population and health programs, including those related to the Sustainable Development Goals (SDGs).

#### c. Scope and coverage

The 2022 NDHS has a national sample of approximately 35,000 households and 28,000 women aged 15 to 49 years, a sample size sufficient to provide reliable estimates at the national and regional levels. All eligible women aged 15-49 years old in the sample households who consented to interview were interviewed with a Woman's Questionnaire including those visitors who stayed the night before the interview. One woman per household was eligible for the Woman's Safety Module, one child aged 1 to 14 years per household was selected for Child Discipline Module, and one child aged 2 to 4 years per eligible woman was selected for Early Childhood Development Index Module.

The sample of households was selected from the 2013 Master Sample (MS) for household-based surveys of the PSA.

## II. Data Collection

The data collection was carried out from 02 May to 22 June 2022 by the 110 field teams. Each team consisted of a Team Supervisor and two to three Field Interviewers, all of whom were females. Fieldwork monitoring was an integral part of the 2022 NDHS. Regional and Team Supervisors were engaged to supervise their teams on a full-time basis. Field check tables based on data from completed questionnaires were also generated regularly by the Central Office and used to monitor progress and provide regular feedback to the field teams. GPS data were also collected during the survey. Due to the Coronavirus disease 2019 (COVID-19) pandemic, guidelines were developed to mitigate potential risk of infection of field teams and survey respondents. These guidelines were followed throughout field data collection, monitoring, and supervision.

## III. Methodology

The sampling scheme provides data representative of the country as a whole, for urban and rural areas separately, and for each of the country's 17 regions. The sample selection methodology for the 2022 NDHS is based on a two-stage stratified sample design using the Master Sample Frame (MSF). The MSF was constructed based on the result of the list of households from the 2010 Census of Population and Housing and updated based on the listing of households from the 2015 Census of Population. The first stage involved a systematic selection of 1,247 primary sampling units (PSUs) distributed by province or HUC. A PSU can be a barangay, a portion of a large barangay, or two or more adjacent small barangays.

In the second stage, a take of 22 or 29 sample housing units were selected from each sampled PSU using systematic random sampling. In situations where a housing unit contained two or three households, all households were interviewed. In the rare situation where a housing unit contained more than three households, only three households were interviewed. The survey interviewers were instructed to interview only the pre-selected housing units. No replacement and no changes of the pre-selected housing units were allowed in the implementation stage in order to prevent bias.

Due to the non-proportional allocation of the sample to the different provinces/HUCs and the possible differences in response rates, sampling weights are required for any analysis using the NDHS 2022 data to ensure the actual representativeness of the survey results at national level and regional level. Since the NDHS 2022 sample is a two-stage stratified cluster sample, sampling weights were calculated based on sampling probabilities separately for each sampling stage, and for each PSU.

We use the following notations:

$P_{1hi}$ : sampling probability of the  $i^{th}$  PSU in stratum  $h$  in the selection of the MSF from the 2015 CPH

$P_{2hi}$ : second-stage sampling probability of housing units within the  $i^{th}$  PSU

For the MSF, it was selected with a stratified equal probability systematic sampling procedure. Let  $a_h$  be the number of PSUs selected in stratum  $h$ , and  $A_h$  be the total number of PSUs in stratum  $h$  according to the 2015 CPH census frame. The probability of selecting the  $i^{th}$  PSU in the MSF is calculated as follows:

$$P_{1hi} = \frac{a_h}{A_h}$$

Let  $B_{hi}$  be the number of housing units in PSU  $i$  in stratum  $h$  according to the housing units list from the 2015 CPH census frame, and let  $b_{hi}$  be the number of housing units selected in the PSU. The second stage's selection probability for each housing unit in the PSU is calculated as follows:

$$P_{2hi} = \frac{b_{hi}}{B_{hi}}$$

The overall selection probability of each household in PSU  $i$  of stratum  $h$  in the 2022 NDHS is therefore the production of the selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi} = \frac{a_h}{A_h} \times \frac{b_{hi}}{B_{hi}}$$

The design weight for each household in PSU  $i$  of stratum  $h$  is the inverse of its overall selection probability:

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

The design weight was adjusted for household non-response and individual non-response to get the sampling weights for households and for women, respectively. Non-response is adjusted at the sampling stratum level. For the household sampling weight, the household design weight is multiplied by the inverse of the household response rate, by stratum. For the women's individual sampling weight, the household sampling weight is multiplied by the inverse of the women's individual response rate, by stratum. After adjusting for non-response, the sampling weights are normalized to get the final standard weights that appear in the data files. The normalization process is done to obtain a total number of unweighted cases equal to the total number of weighted cases at the national level, for the total number of households and women. Normalization is done by multiplying the sampling weight by the estimated sampling fraction obtained from the survey for the household weight and the individual woman's

weight. The normalized weights are relative weights which are valid for estimating means, proportions, ratios, and rates, but are not valid for estimating population totals or for pooled data.

#### IV. Definitions of Terms

**ELIGIBLE WOMEN** – All women aged 15 to 49 years in the sample households including those visitors who stayed the night before the interview.

**WEALTH QUINTILE** - Households are given scores based on the number and kinds of consumer goods they own, ranging from a television to a bicycle or car, and housing characteristics such as source of drinking water, toilet facilities, and flooring materials. These scores are derived using principal component analysis. National wealth quintiles are compiled by assigning the household score to each usual (de jure) household member, ranking each person in the household population by her or his score, and then dividing the distribution into five equal categories, each comprising 20% of the population.  
[https://dhsprogram.com/data/Guide-to-DHS-Statistics/Wealth\\_Quintiles.htm](https://dhsprogram.com/data/Guide-to-DHS-Statistics/Wealth_Quintiles.htm)

#### V. Dissemination of Results

The NDHS Press Release and the statistical tables are publicly available at the PSA website [www.psa.gov.ph](http://www.psa.gov.ph). The Final Report and datasets will be released one year after the data collection.

#### VI. Citation

Philippine Statistics Authority (PSA) and ICF. 2022. *Philippine 2022 National Demographic and Health Survey: Key Indicators Report*. Quezon City, Philippines, and Rockville, Maryland, USA: PSA and ICF.

## VII. Contact Information

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