



الهيئة العامة للإحصاء
General Authority for Statistics

Methodology and Quality Report of Early Childhood Development and Child Wellbeing Statistics Publication

V-3.1

Quality Management



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1. Contact

1.1. Contact organization	General Authority for Statistics
1.2. Contact organization unit	Health and Education Statistics Department
1.3. Contact person function	Health and Education Statistics Director
1.4. Contact mail address	P.O. Box: 3735 Riyadh, 11481 Kingdom of Saudi Arabia
1.5. Contact email address	info@stats.gov.sa
1.6. Contact phone number	199009

2. Methodology and Quality Update

2.1. Methodology and Quality last update	25/11/2024
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3. Statistical Presentation

3.1. Data description

The Early Childhood Development and Child Well-being Statistics Publication presents data on early childhood development and child well-being in Saudi Arabia.

It is a survey conducted to collect data on the basic characteristics as follows:

- Early childhood development and child well-being.



Data is also used to estimate:

- Early Childhood Development Index.
- The percentage of children under five years old who have the ability to pronounce and speak any language.
- The percentage of children aged 7-14 years who have at least one book at home.
- Equivalence indicators.
- The percentage of primary school students whose first language or native language is the language of instruction.

3.2. Classification system

The following classifications are applied in the Early Childhood Development and Child Well-B Statistics Publication.

National Code of Countries and Nationalities (ISO 3166- Country codes):

A statistical classification based on the international standard (ISO 3166_Country codes), which is a standard issued by the International Organization for Standardization (ISO of the UN), and this classification gives numeric and literal codes for the world's (248) countries, based on the classification of countries.

The classification is used in The Early Childhood Development and Child Well-being Statistics Publication to classify Saudi or non-Saudi individuals.

Methodology and Quality is collected through interviews, so that output can be produces in accordance with all relevant classifications.

The classifications are available on the GASTAT's website: www.stats.gov.sa

3.3. Sector coverage

Not applicable.

3.4. Statistical concepts and definitions

Terms and concepts of The Early Childhood Development and Child Well-being Statistics Publication:



The Early Childhood Development Index (ECDI) is a measurement tool used to assess how well children develop in the early years of their lives. This indicator aims to provide a clear picture of the situation of children in various developmental areas, such as:

- **Physical growth:**

This aspect includes the child's general health, weight, height, and the development of motor skills.

- **Cognitive development:**

This aspect measures the child's ability to learn, remember, solve problems, and think.

- **Language development:**

This aspect relates to the development of a child's language skills, both expressive and receptive.

- **Social and emotional development:**

This aspect measures the child's ability to interact with others, form relationships, and manage emotions.

3.5. Statistical unit

The statistical unit in The Early Childhood Development and Child Well-being Statistics Publication is the individual

3.6. Statistical population

The statistical population for the Early Childhood Development and Child Well-being Statistics Publication consists of households, both Saudi and non-Saudi, who live in the Kingdom of Saudi Arabia.

3.7. Reference area

The Early Childhood Development and Child Well-being Statistics Publication covers 13 administrative regions in the Kingdom of Saudi Arabia and 151 governorates affiliated with these administrative regions.



3.8. Time coverage

Data is available for 2024.

3.9. Base period

2023 is the base year used to calculate the indicators.

4. Unit of measure

some results are reported as percentage (such as: The percentage of children under five years old who have the ability to pronounce and speak any language.

5. Reference period

References period to the variables or dataset as following:

Data is referred to the date of data collection in 26/06/2024.

6. Confidentiality

6.1. Confidentiality - policy

According to the Royal Decree No. 23 dated 07-12-1397, data must always be kept confidential and must be used by GASTAT only for statistical purposes.

Therefore, the data are protected in the data servers of the Authority.



6.2. Confidentiality - data treatment

Data are displayed in appropriate tables to facilitate its summarization, comprehension, results extraction, comparison with other data and coming up with statistical connotations for the study community. It is also easier to check tables without the need to see the original questionnaire, which usually include data like names and addresses of individuals, names of data providers, which violates the confidentiality of statistical data.

“Anonymity of data” is one of the most important procedures. To keep data confidential, GASTAT removed personal information of individuals, households, or business entities in a way that does not allow the identification of the respondent either directly (by name, address, contact number, identity number etc.) or indirectly (by combining different - especially rare - characteristics of respondents: age, occupation, education etc.).

7. Release policy

7.1. Release calendar

The Early Childhood Development and Child Well-being Statistics Publication has been included in the statistical calendar.

7.2. Release calendar access

The release calendar is available at: <https://www.stats.gov.sa/ar/future-releases>

7.3. User access

One of GASTAT’s objectives is to meet its clients’ needs, so it immediately provides them with the publication’s results once The Early Childhood Development and Child Well-being Statistics Publication is published.

It also receives questions and inquiries of the clients about the Publication and its results through various communication channels, such as:

- GASTAT official website: www.stats.gov.sa
- GASTAT official e-mail address: info@stats.gov.sa



- Client support e-mail: cs@stats.gov.sa
- Official visits to GASTAT's official head office in Riyadh or one of its branches in Saudi Arabia.
- Official letters.
- Statistical telephone: (199009).

8. Frequency of dissemination

Annual.

9. Accessibility and clarity

9.1. News release

The announcements of each publication are available on release calendar as mentioned in 7.2. Release calendar access. The news release can be viewed on the website of GASTAT through the following link:

<https://www.stats.gov.sa/en/news>

9.2. Publications

GASTAT issues The Early Childhood Development and Child Well-being Statistics Publication on a regular basis within a pre-prepared dissemination plan and are published on GASTAT's website. GASTAT is keen to publish its publications in a way that serves all users of different types, including publications in different formats that contain (publication tables, data graphs, indicators, Methodology and Quality Report, and questionnaires) in both English and Arabic.

Early Childhood Development and Child Well-Being Statistics results are available at:

<https://www.stats.gov.sa/ar/1245>



9.3. On-line database

The data is published on the statistical database.

<https://database.stats.gov.sa/home/indicator/542>

9.4. Micro-data access

Microdata are unit-level datasets derived from surveys, censuses, and administrative records. These datasets provide detailed insights into individuals, households, businesses, and geographic areas, supporting the development of statistical indicators and in-depth research.

The different types of microdata files to meet different information needs:

- Public use:

It consists sets of records containing information on individual persons, households, or business entities anonymized in such a way that the respondent cannot be identified either directly (by name, address, contact number, identity number etc.) or indirectly (by combining different - especially rare - characteristics of respondents: age, occupation, education etc.).

- Scientific use:

These files established based on specific methodology asked by data requester to extract the datasets with specific characteristics used for strategic studies and decision making as well scientific research purposes on individuals, households and enterprises with no direct identifiers, which have been subject to control methods to protect confidentiality.

Access to Scientific Use Files (SUF) is restricted to authorized researchers who comply with ethical and confidentiality standards. Representative samples of SUF can be obtained through GASTAT's secure platform, "**Etaha**," while more sensitive datasets are accessible only through secure physical lab environments managed by GASTAT.

9.5. Other

Not available.



9.6. Documentation on methodology

The Framework of Early childhood development and child well-being Statistics:

The concepts, definitions, issues and classifications are based on internationally approved scientific standards. GSBPM statistical phases were followed starting from determination of needs, design, collection, processing, analysis, publication and finally evaluation. However, the methodology of sampling was as follows:

A set of international methodologies was used to calculate the indicators, which are:

The Early Childhood Development Index, which is calculated using the methodology of Indicator (4.2.1) from the indicators of Goal 4 of the Sustainable Development Goals: The percentage of children aged 24 to 59 months who are on track in terms of growth in the areas of health, learning, and psychosocial well-being, disaggregated by Sex.

9.7. Quality documentation

Quality documentation covers documentation on methods and standards for assessing, measuring, and monitoring the quality of statistical process and output. It is based on standard quality criteria such as relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, comparability, and coherence.

10. Quality management

10.1. Quality assurance

GASTAT declares that it considers the following principles: impartiality, user orientated, quality of processes and output, effectiveness of statistical processes, reducing the workload for respondents.

Quality controls and validation of data are actions carried out throughout the process in different stages such as the data input and data collection and other final controls.

10.2. Quality assessment

GASTAT performs all statistical activities according to a national model (Generic Statistical Business Process Model - GSBPM). According to the GSBPM, the final phase of statistical



activities is overall evaluation using information gathered in each phase or sub-process. This information is used to prepare the evaluation report which outlines all the quality issues related to the specific statistical activity and serves as input for improvement actions.

11. Relevance

11.1. User needs

Internal users in the GASTAT for The Early Childhood Development and Child Well-being Statistics Publication data:

Social statistics

- Population, gender, and diversity
- Living conditions, lifestyles, and justice statistics
- Health and education statistics

Some several external users and beneficiaries greatly benefit from the Research and Development Survey data, including:

- Government entities.
- Regional and international organizations.
- Research institutions.
- Media.
- Individuals.

The disseminated key variables used by external users:

Ministry of Health	Survey variables and indicators.
Ministry of Economy and Planning	
Public Health Authority	
Saudi Health Council	
National Health Information Center	
Health Sector Transformation Program	
Ministry of Sport	Indicators of physical activity.
Quality of Life Program	



11.2. User satisfaction

Not available.

11.3. Completeness

Data from the Statistics of early Childhood Development and Child Welfare Bulletin are based on survey data from:

- Woman's and Child Health Survey.

and complete data

12. Accuracy and reliability

12.1. Overall accuracy

- The data collected is improved through the researchers, that have been selected according to a set of practical and objective criteria and training program related to the field of work.
- Alert, prevention, and correction rules are applied during the data collection process on the e-questionnaire of The Early Childhood Development and Child Well-being Statistics Publication in order to improve data quality.
- Data is checked with previous years to identify any significant changes in the data.
- The internal consistency of the data is checked before it is finalized.
- The links between variables are checked and coherence between different data series is confirmed.

13. Timeliness and punctuality

13.1. Timeliness

GASTAT uses the Special Data Dissemination Standard (SDDS) issued by the International Monetary Fund. According to this Standard, all statistics agencies are required to publish data



on an annual basis, and with a delay of not more than mid of year (180 days) after the end of the reference period. If the data are from different source, they may be published in a different frequency.

13.2. Punctuality

Publication is done according to the release dates listed in the published statistical calendar for Early Childhood Development and Child Well-being Statistics on the website of the General Authority for Statistics.

The data are available at the expected time, as scheduled in the statistical release calendar, If the publication is delayed, reasons shall be provided.

14. Coherence and comparability

14.1. Comparability - geographical

The data is geographically comparable.

14.2. Comparability - over time

The publication of Early Childhood Development and Child Well-being Statistics began in 2023 as an annual publication.

14.3. Coherence- cross domain

Not applicable.

14.3.1. Coherence - sub annual and annual statistics

Not applicable.

14.3.2. Coherence- National Accounts

Not applicable.



14.4. Coherence - internal

The Early Childhood Development and Child Well-being Statistics Publication estimates have full internal coherence, as they are all based on the same corpus of microdata, and they are calculated using the same estimation methods.

15. Resources used

Description	Total
Total staff (GASTAT's staff, researchers).	1079
Number of unites surveyed.	79723
Total days of data collection period (end date - start date).	37
Average conducted interviewer per day (during data collection).	3000

16. Data revision

16.1. Data revision - policy

Not applicable, only final results will be published.

16.2. Data revision - practice

Not applicable, only final results will be published.



17. Statistical processing

17.1. Source data

The Early Childhood Development and Child Well-being Statistics Publication are based on the data of the National Health Survey and the Woman and Child's Health Survey implemented by GASTAT.

The disseminated key variables of survey data are:

- Gender.
- Nationality.
- Administrative region.
- Age groups.

17.2. Frequency of data collection

Annual.

17.3. Data collection

Data for the Early Childhood Development and Child Well-being Statistics Publication is collected through computer-assisted personal interviews (CAPI) as follows:

Woman and Child Health Survey: A sample consisting of women aged 15 to 49 years old and children under 15 years old in Saudi Arabia.

17.4. Data validation

Data are reviewed and matched to ensure their accuracy and precision in a way that suits their nature with the aim of giving the presented statistics quality and accuracy.

The data for the current year's publication are compared with the data of the previous year to ensure their integrity and consistency in preparation for processing data and extracting and reviewing results.

In addition to the data processing and tabulation to check their accuracy, all the outputs are stored and uploaded to the database after being calculated by GASTAT to be reviewed and processed by specialists in early childhood development and child well-being statistics through modern technologies and software designed for this purpose.



17.5. Data compilation

Data Coding:

In the Early Childhood Development and Child Well-being Statistics Publication, statisticians collect detailed descriptions of fields from respondents. This information is then coded in-house by an automated process, which is reviewed by a small-dedicated team of coding experts using a series of consistency checks.

Data editing:

Specialists of the Health and Education Statistics Department have processed and analyzed data in this stage, and this step was based on the following measures:

- Sorting and arranging data in groups or different categories in a serial order.
- Summarizing detailed data into key points or data.
- Combining many data segments and ensuring their interconnection.
- Processing incomplete or missing data.
- Processing illogical data.
- Converting data into statistically significant data.
- Arranging, presenting, and interpreting data.

Extrapolation and weighting:

After processing the data collected from respondents, survey weights were generated to produce indicator tables by following two main steps in creating survey weights:

- Adjustment of non-response.
- Calibration weight

Applied statistical estimation:

The General Authority for Statistics (GASTAT) relied on formulas based on international standards to calculate the main indicators of the Early Childhood Development and Child Well-being Statistics Publication as follows:

- The Early Childhood Development Index, which is calculated using the methodology of Indicator (4.2.1) from the indicators of Goal 4 of the Sustainable Development Goals: The percentage of children aged 24 to 59 months who are on track in terms of growth in the areas of health, learning, and psychosocial well-being, disaggregated by Sex.



17.6. Adjustment

Not applicable, only final results will be published.

18. Comment