This data article presents child nutritional status and its socioeconomic determinants in Ethiopia with special reference to Nonno District, Oromia Region. As recommended by WHO (2006) [1], the nutritional status in this data article is based on three indices (height-for-age, weight-for-height and weight-for-age) for the children in this survey. The data was obtained from four hundred eight (408) households selected by using simple random sampling procedure. The data article shows that the overall prevalence of child malnutrition in the community was high with 46.3% of the children stunted, 41.9% underweight and 11.5% wasted. Moreover, the dataset presents family size, parental education, wealth status of the household, preceding birth interval, antenatal care (ANC) attendance, disease and sanitation are vital determinants of child malnutrition in the area.

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Type of data Table and text file
How data was acquired Household questionnaire survey and child anthropometric measurement
Data format Analyzed
Experimental factors We made use of standard hanging balance and height board
Experimental features Anthropometric data was exported to ENA for SMART 2011 software and converted into Z-scores of the indices: height-for-age, weight-for-height and weight-for-age. Socioeconomic data was analyzed by using to SPSS Version 20 software.
Data source location Nonno district (8°15’N-8°40’N and 37°20’ E-37°35’E), Ethiopia
Data accessibility The data is with this article

Value of the data

- The data presented in this article gives a general picture on the socioeconomic and child nutritional status of the rural community in Ethiopia.
- The data provides information on the socioeconomic determinants of child malnutrition in Ethiopia with special reference to Nonno district.
- The data are important for interventions related to improve child nutritional status in Ethiopia.
- The data are important for planning for socioeconomic development of the rural households in Ethiopia.
- The data can be used by researchers and academicians for further researches and for references.

1. Data

This data article presents the nutritional status of children and the socioeconomic determinants of child nutritional status in Nonno district, Ethiopia. Table 1 presents demographic and socioeconomic characteristics while Table 2 portrays housing and hygienic conditions of the surveyed households. Tables 3 and 4 present data on stunting, underweight and wasting. Tables 5–8 present data on the association between the determinant variables and stunting, underweight and wasting.

2. Methods and materials

Simple random sampling technique was employed to select sample households and children for socioeconomic, demographic, health, environmental and anthropometric data. Only one child was selected from one sample household incase of the presence of more than one child (6–59 months) within a household. Only one under-five child was selected by using simple random sampling when there were more than one under-five children in the household. In case there was no under-five child in a selected household, the next neighboring household was considered. Severely ill child/children was/were excluded and only households having under-five children were included. Socioeconomic data was collected through household survey while anthropometric measurement involved the measurement of weight and height of the under-five children by using the procedure recommended...
Table 1
Demographic and socioeconomic characteristics of the households.

| Characteristics                                   | Number of respondents | Percent |
|---------------------------------------------------|-----------------------|---------|
| Head of household                                 |                       |         |
| Male                                              | 390                   | 95.6    |
| Female                                            | 18                    | 4.4     |
| Current marital status of head of household       |                       |         |
| Married                                           | 391                   | 95.8    |
| Divorced                                          | 10                    | 2.5     |
| Separate                                         | 6                     | 1.5     |
| Widowed                                           | 1                     | 0.2     |
| Family/household size                            |                       |         |
| ≤ 5                                               | 179                   | 43.9    |
| 6+                                                | 229                   | 56.1    |
| Number of under-five children in the household    |                       |         |
| 1                                                 | 160                   | 39.2    |
| 2                                                 | 181                   | 44.4    |
| ≥ 3                                               | 67                    | 16.4    |
| Paternal education                                |                       |         |
| No education                                      | 188                   | 46.1    |
| Primary and above                                 | 219                   | 53.7    |
| Maternal education                                |                       |         |
| No education                                      | 349                   | 85.5    |
| Primary and above                                 | 59                    | 14.5    |
| Paternal occupation                               |                       |         |
| Farmer                                            | 384                   | 94.1    |
| Other                                             | 23                    | 5.6     |
| Maternal occupation                               |                       |         |
| House wife                                        | 374                   | 91.7    |
| Other                                             | 34                    | 8.3     |
| Mothers age                                       |                       |         |
| ≤ 25                                              | 195                   | 47.8    |
| 26–34                                             | 165                   | 40.4    |
| ≥ 35                                              | 48                    | 11.8    |
| Mothers age at first birth                        |                       |         |
| ≤ 20                                              | 378                   | 92.6    |
| ≥ 21                                              | 30                    | 7.4     |
| Livestock animals                                 |                       |         |
| Yes                                                | 350                   | 85.8    |
| No                                                | 58                    | 14.2    |
| Own farm land                                     |                       |         |
| < 2 ha                                            | 109                   | 26.7    |
| ≥ 2 ha                                            | 262                   | 64.2    |
| No                                                | 37                    | 9.1     |
| Radio                                             |                       |         |
| Yes                                                | 102                   | 25      |
| No                                                | 306                   | 75      |
| Ethnicity                                         |                       |         |
| Oromo                                             | 388                   | 95.1    |
| Other                                             | 20                    | 4.9     |
| Religion                                          |                       |         |
| Muslim                                            | 379                   | 92.9    |
| Other                                             | 29                    | 7.1     |
by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) [1,2] and Central Statistical Agency of Ethiopia [3]. Weight was measured in kilogram to the nearest 0.1 kg by using weighing scale beam (Model QE 2003B). Height/length was measured by using wooden board to the nearest 0.1 cm. For children of age 6–24 months, length was measured horizontally (in a laying

| Table 2 |
|---|
| Environmental characteristics of the households. |

| Characteristics | Number of respondents | Percent |
|---|---|---|
| **Types of houses** | | |
| Tukul/thatched | 160 | 39.2 |
| Corrugated iron sheet | 248 | 60.8 |
| **Type of floor of house** | | |
| Soil | 401 | 98.3 |
| Cement or brick | 7 | 1.7 |
| **Number of rooms** | | |
| 1 | 128 | 31.4 |
| 2 | 173 | 42.4 |
| ≥ 3 | 107 | 26.2 |
| **Latrine** | | |
| No latrine | 112 | 27.5 |
| Private/wooden slab | 279 | 68.4 |
| Shared/wooden slab | 17 | 4.2 |
| **Presence of window** | | |
| Yes | 109 | 26.7 |
| No | 299 | 73.3 |
| **Main source of drinking water** | | |
| Public pump | 357 | 87.5 |
| Pond | 41 | 10 |
| Unprotected spring | 10 | 2.5 |
| **Waste disposal** | | |
| Open field | 233 | 57.1 |
| In a pit | 97 | 23.8 |
| Composting | 61 | 15 |
| Burning | 17 | 4.2 |
| **Separate room for kitchen** | | |
| Yes | 155 | 38 |
| No | 253 | 62 |
| **Separate room for livestock** | | |
| Yes | 147 | 36 |
| No | 261 | 64 |
| **Type of fuel** | | |
| Wood and animal dung | 408 | 100 |

| Table 3 |
|---|
| Prevalence of stunting based on height-for-age z-scores and by sex. |

| Stunting | All \( n=408 \) | Boys \( n=214 \) | Girls \( n=194 \) |
|---|---|---|---|
| Prevalence of stunting \((< -2 \text{ z-score})\) | (189) 46.3% | (105) 49.1% | (84) 43.3% |
| Prevalence of moderate stunting \((< -2 \text{ z-score} \text{ and } \geq -3 \text{ z-score})\) | (136) 33.3% | (74) 34.6% | (62) 32.0% |
| Prevalence of severe stunting \((< -3 \text{ z-score})\) | (53) 13.0% | (31) 14.5% | (22) 11.3% |
Table 4  
Prevalence of underweight based on weight-for-age z-scores by sex.  

| Underweight       | All n=408 | Boys n=214 | Girls n=194 |
|-------------------|-----------|------------|-------------|
| Prevalence of underweight (≤ −2 z-score) | 171 (41.9%) | 98 (45.8%) | 73 (37.6%) |
| Prevalence of moderate underweight (≤ −2 z-score and ≥ −3 z-score) | 117 (28.7%) | 67 (31.3%) | 50 (25.8%) |
| Prevalence of severe underweight (≤ −3 z-score) | 54 (13.2%) | 31 (14.5%) | 23 (11.9%) |

Table 5  
Prevalence of acute malnutrition based on weight-for-height z-scores and by sex.  

| Wasting           | All n=408 | Boys n=214 | Girls n=194 |
|-------------------|-----------|------------|-------------|
| Prevalence of global malnutrition (≤ −2 z-score) | 47 (11.5%) | 27 (12.6%) | 20 (10.3%) |
| Prevalence of moderate malnutrition (≤ −2 z-score and ≥ −3 z-score) | 35 (8.6%) | 20 (9.3%) | 15 (7.7%) |
| Prevalence of severe malnutrition (≤ −3 z-score) | 12 (2.9%) | 7 (3.3%) | 5 (2.6%) |

Table 6  
Association between stunting and selected socioeconomic variables.  

| Selected variables | Stunted frequency (%) | Not stunted frequency (%) |
|--------------------|-----------------------|---------------------------|
| Household family size |                       |                           |
| ≤ 5                | 41 (10.05)            | 138 (33.82)               |
| ≥ 6                | 148 (36.27)           | 81 (19.85)                |
| No. of under-five children |                 |                           |
| 1                  | 58 (14.22)            | 102 (25.00)               |
| 2                  | 84 (20.59)            | 97 (23.77)                |
| ≥ 3                | 47 (11.52)            | 20 (4.90)                 |
| Paternal education |                       |                           |
| No education       | 123 (30.22)           | 65 (15.97)                |
| Primary and above  | 65 (15.97)            | 154 (37.84)               |
| Wealth of household|                       |                           |
| Low                | 122 (29.9)            | 30 (7.35)                 |
| Middle             | 58 (14.22)            | 139 (34.07)               |
| High               | 9 (2.21)              | 50 (12.25)                |
| Ethnic group       |                       |                           |
| Oromo              | 179 (43.87)           | 209 (51.23)               |
| Other              | 10 (2.45)             | 10 (2.45)                 |
| Religion           |                       |                           |
| Muslim             | 173 (42.40)           | 206 (50.49)               |
| Other              | 16 (3.92)             | 13 (3.19)                 |
| Mothers age        |                       |                           |
| ≤ 25               | 91 (22.30)            | 104 (25.49)               |
| 26–34              | 74 (18.14)            | 91 (22.30)                |
| ≥ 35               | 24 (5.88)             | 24 (5.88)                 |
| Maternal education |                       |                           |
| No education       | 187 (45.83)           | 162 (39.71)               |
| Primary and above  | 2 (0.49)              | 57 (13.97)                |
position). For children of age over 24 months, height was measured vertically (in a standing position). Two readings were taken and the average was recorded for accuracy. The data were coded and entered in to the computer using EPI info software, exported to ENA for SMART 2011 software and converted into Z-scores of the indices: height-for-age, weight-for-height and weight-for-age. Socio-economic, demographic, health and environmental data were analyzed by using SPSS Version 20 Software.

### Table 6 (continued)

| Selected variables                          | Stunting                  |
|---------------------------------------------|---------------------------|
|                                             | Stunted frequency (%)     | Not stunted frequency (%) |
| **Sex of a child**                          |                           |                            |
| Female                                      | 86 (21.08)                | 108 (26.47)                |
| Male                                        | 103 (25.25)               | 111 (27.21)                |
| **Age of a child**                          |                           |                            |
| 6–11                                        | 8 (1.96)                  | 33 (8.09)                  |
| 12–23                                       | 40 (9.80)                 | 43 (10.54)                 |
| 24–35                                       | 54 (13.24)                | 44 (10.78)                 |
| 36–47                                       | 55 (13.48)                | 41 (10.05)                 |
| 48–59                                       | 32 (7.84)                 | 58 (14.22)                 |
| **Preceding birth interval**                |                           |                            |
| < 24 months                                 | 88 (21.57)                | 66 (16.18)                 |
| 24–48 months                                | 36 (8.82)                 | 57 (13.97)                 |
| > 48 months                                 | 26 (6.37)                 | 48 (11.76)                 |
| 1st birth                                   | 39 (9.56)                 | 48 (11.76)                 |
| **ANC attendance**                          |                           |                            |
| Yes                                         | 63 (15.44)                | 140 (34.31)                |
| No                                          | 126 (30.88)               | 79 (19.36)                 |
| **Exclusive breast feeding**                |                           |                            |
| < 6 months                                  | 12 (2.94)                 | 17 (4.17)                  |
| ≥ 6 months                                  | 176 (43.14)               | 201 (49.26)                |
| No EBF                                      | 1 (0.25)                  | 1 (0.25)                   |
| **Frequency of additional food given for the child per 24 h** | | |
| ≤ 2 times                                   | 73 (17.89)                | 49 (12.00)                 |
| ≥ 3 times                                   | 109 (26.72)               | 163 (39.95)                |
| Not started                                 | 7 (1.72)                  | 7 (1.72)                   |
| **Vaccination**                             |                           |                            |
| Yes                                         | 156 (38.24)               | 213 (52.21)                |
| No                                          | 33 (8.09)                 | 6 (1.47)                   |
| **Sign of disease in the past 2 weeks before the survey** | | |
| Yes                                         | 74 (18.14)                | 75 (18.38)                 |
| No                                          | 115 (28.19)               | 144 (35.29)                |
| **Main source of drinking water**           |                           |                            |
| Public pump                                 | 145 (35.54)               | 212 (51.96)                |
| Pond                                        | 37 (9.07)                 | 4 (0.98)                   |
| Unprotected spring                          | 7 (1.72)                  | 3 (0.74)                   |
| **Availability of latrine**                 |                           |                            |
| Yes                                         | 116 (28.43)               | 180 (44.12)                |
| No                                          | 73 (17.89)                | 39 (9.56)                  |
| **No. of house rooms**                      |                           |                            |
| 1–2                                         | 159 (38.97)               | 142 (34.80)                |
| 3+                                          | 30 (7.35)                 | 77 (18.87)                 |
Table 7
Association between underweight and selected socioeconomic variables.

| Selected variables | Underweight | Not underweight |
|--------------------|-------------|-----------------|
|                     | Underweight frequency (%) | Not underweight frequency (%) |
| Household family size |             |                 |
| ≤ 5                | 25 (6.13)   | 154 (37.75)     |
| ≥ 6                | 146 (35.78) | 83 (20.34)      |
| No. of under-five children |        |                 |
| 1                  | 51 (12.50)  | 109 (26.72)     |
| 2                  | 72 (17.65)  | 109 (26.72)     |
| ≥ 3                | 48 (11.76)  | 19 (4.66)       |
| Paternal education |             |                 |
| No education       | 112 (27.52) | 76 (18.67)      |
| Primary and above  | 59 (14.49)  | 160 (39.31)     |
| Wealth of household|             |                 |
| Low                | 119 (29.17) | 33 (8.09)       |
| Middle             | 47 (11.52)  | 150 (36.76)     |
| High               | 5 (1.23)    | 54 (13.23)      |
| Ethnic group       |             |                 |
| Oromo              | 159 (38.97) | 229 (56.13)     |
| Other              | 12 (2.94)   | 8 (1.96)        |
| Religion           |             |                 |
| Muslim             | 155 (37.99) | 224 (54.90)     |
| Other              | 16 (3.92)   | 13 (3.19)       |
| Mothers age        |             |                 |
| ≤ 25               | 81 (19.85)  | 114 (27.94)     |
| 26–34              | 70 (17.16)  | 95 (23.28)      |
| ≥ 35               | 20 (4.90)   | 28 (6.86)       |
| Maternal education |             |                 |
| No education       | 168 (41.17) | 181 (44.36)     |
| Primary and above  | 3 (0.74)    | 56 (13.72)      |
| Sex of a child     |             |                 |
| Female             | 74 (18.14)  | 120 (29.41)     |
| Male               | 97 (23.77)  | 117 (28.67)     |
| Age of a child     |             |                 |
| 6–11               | 10 (2.45)   | 31 (7.59)       |
| 12–23              | 36 (8.82)   | 47 (11.52)      |
| 24–35              | 46 (11.27)  | 52 (12.74)      |
| 36–47              | 47 (11.52)  | 49 (12.00)      |
| 48–59              | 32 (7.84)   | 58 (14.21)      |
| Preceding birth interval |       |                 |
| < 24 months        | 86 (21.07)  | 68 (16.67)      |
| 24–48 months       | 30 (7.35)   | 63 (15.44)      |
| > 48 months        | 26 (6.37)   | 48 (11.76)      |
| 1st birth          | 29 (7.11)   | 58 (14.22)      |
| ANC attendance     |             |                 |
| Yes                | 51 (12.50)  | 152 (37.25)     |
| No                 | 120 (29.41) | 85 (20.83)      |
| Exclusive breast feeding |       |                 |
| < 6 months         | 13 (3.18)   | 16 (3.92)       |
| ≥ 6 months         | 158 (38.72) | 219 (53.67)     |
| No EBF             | 0 (0.00)    | 2 (0.49)        |
| Frequency of additional food given for the child per 24 h | | |
| ≤ 2 times          | 74 (18.14)  | 48 (11.76)      |
| ≥ 3 times          | 87 (21.32)  | 185 (45.34)     |
| Not started        | 10 (2.45)   | 4 (0.98)        |
| Vaccination        |             |                 |
| Yes                | 139 (34.07) | 230 (56.37)     |
| No                 | 32 (7.84)   | 7 (1.72)        |
| Sign of disease in the past 2 weeks before the survey | | |
| Yes                | 89 (21.81)  | 60 (14.71)      |
| No                 | 82 (20.10)  | 177 (43.38)     |
### Table 7 (continued)

| Selected variables                          | Underweight |                  | Not underweight frequency (%) |
|---------------------------------------------|-------------|------------------|--------------------------------|
| **Main source of drinking water**           |             |                  |                                |
| Public pump                                 | 130 (31.86) | 227 (55.64)      |                                |
| Pond                                        | 33 (8.09)   | 8 (1.96)         |                                |
| Unprotected spring                          | 8 (1.96)    | 2 (0.49)         |                                |
| Availability of latrine                     |             |                  |                                |
| Yes                                         | 94 (23.04)  | 202 (49.51)      |                                |
| No                                          | 77 (18.87)  | 35 (8.58)        |                                |
| **No. of house rooms**                      |             |                  |                                |
| 1-2                                         | 147 (36.04) | 154 (37.74)      |                                |
| 3+                                          | 24 (5.88)   | 83 (20.34)       |                                |

### Table 8

Association between wasting and selected socioeconomic variables.

| Selected variables                          | Wasting |                  | Not wasted frequency (%) |
|---------------------------------------------|---------|------------------|---------------------------|
| **Household family size**                   | Wasted  |                  | Not wasted                |
| ≤ 5                                         | 8 (1.96)| 171 (41.91)      |                           |
| ≥ 6                                         | 40 (9.80)| 189 (46.32)     |                           |
| **No. of under-five children**              | Wasted  |                  | Not wasted                |
| 1                                           | 5 (1.22)| 155 (37.99)      |                           |
| 2                                           | 14 (3.43)| 167 (40.93)     |                           |
| ≥ 3                                         | 29 (7.11)| 38 (9.32)       |                           |
| **Paternal education**                      | Wasted  |                  | Not wasted                |
| No education                                | 26 (6.38)| 162 (39.80)     |                           |
| Primary and above                           | 22 (5.40)| 197 (48.40)     |                           |
| **Wealth of household**                     | Wasted  |                  | Not wasted                |
| Low                                         | 30 (7.35)| 122 (29.9)      |                           |
| Middle                                      | 16 (3.93)| 181 (44.36)     |                           |
| High                                        | 2 (0.49)| 57 (13.97)       |                           |
| **Ethnic group**                            | Wasted  |                  | Not wasted                |
| Oromo                                       | 45 (11.03)| 343 (84.06)     |                           |
| Other                                       | 3 (0.73)| 17 (4.17)        |                           |
| **Religion**                                | Wasted  |                  | Not wasted                |
| Muslim                                      | 44 (10.78)| 335 (82.11)     |                           |
| Other                                       | 4 (0.98)| 25 (6.13)        |                           |
| **Mothers age**                             | Wasted  |                  | Not wasted                |
| ≤ 25                                        | 24 (5.88)| 171 (41.91)      |                           |
| 26–34                                       | 19 (4.66)| 146 (35.78)      |                           |
| ≥ 35                                        | 5 (1.23)| 43 (10.54)       |                           |
| **Maternal education**                      | Wasted  |                  | Not wasted                |
| No education                                | 47 (11.52)| 302 (74.02)     |                           |
| Primary and above                           | 1 (0.24)| 58 (14.22)       |                           |
| **Sex of a child**                          | Wasted  |                  | Not wasted                |
| Female                                      | 21 (5.14)| 173 (42.40)      |                           |
| Male                                        | 27 (6.62)| 187 (45.83)      |                           |
| **Age of a child**                          | Wasted  |                  | Not wasted                |
| 6–11                                        | 1 (0.24)| 40 (9.80)        |                           |
| 12–23                                       | 8 (1.96)| 75 (18.38)       |                           |
| 24–35                                       | 17 (4.17)| 81 (19.85)      |                           |
| 36–47                                       | 12 (2.94)| 84 (20.59)       |                           |
| 48–59                                       | 10 (2.45)| 80 (19.61)       |                           |
| **Preceding birth interval**                | Wasted  |                  | Not wasted                |
| < 24 months                                 | 35 (8.58)| 119 (29.17)      |                           |
| 24–48 months                                | 4 (0.98)| 89 (21.81)       |                           |
| > 48 months                                 | 6 (1.47)| 68 (16.67)       |                           |
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Transparency document. Supporting information

Transparency data associated with this article can be found in the online version at http://dx.doi.org/10.1016/j.dib.2017.07.007.

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