Assessment of the Status of Birth Registration in Gamo Gofa Zone and Konso Woreda, SNNPR, Ethiopia

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SUBJECT AREAS  Health Policy

KEYWORDS
Birth Registration, Awareness on birth registration, factor, Ethiopia
Abstract

Background: According to the monitoring results in Africa, the regional average completeness rate of birth registration has increased from around 40% to 56% from 2012 to 2015. Ethiopia is among the countries with less than 20% of births registered. Even if Ethiopia, with its 38,000 health extension workers already deployed on the ground and increasingly linked to communities through the Women’s Development Army, had a unique opportunity to rapidly accelerate the coverage of birth registration but until the recent time, the rate of birth registration in Ethiopia is very low.

Objective: This study was aimed to assess the level of birth registration, status of awareness about birth registration and factors affecting birth registration status in Gamo Gofa and Zegen area people Zone SNNPR, Ethiopia.

Methods: The study was in Gamo Gofa and Gegen area people Zone using pretest quasi experimental study design. The data was collected in November 2018. The quantitative data was collected by structured interviewer-administered questionnaire from 498 households. Qualitative data was collected through Focal Group Discussion using interview guides from key informants. Descriptive statistics including frequencies, means and standard deviations were employed to present finding. Logistic regression analyses were used to determine association with birth registration practice. Model fitness was checked.

Results: The study shows that majority of the respondents were male 300(60.2%) and females account 198(39.8%). The finding also revealed that the prevalence of birth registration among children age below 5 years old is 12.1%; whereas, prevalence of birth registration practice among age group between 5 and 18 years
old is 14.9%. The level of awareness on birth registration among study participants accounts 33.7%. In the multivariate analysis sex, religion, level of education, awareness on birth registration institution, radio program and VERA office have a significant association with the birth registration.

Conclusion: The overall level of practice of birth registration in this study is far lower than many studies from other countries. Thus, implementing remedial action in order to improve birth registration is essential.

Background

Vital acts and events are the births, deaths, marriages, and all such events that have something to do with an individual’s entrance and departure from life together with the changes in civil status that may occur to a person lifetime [1]. Accordingly, under the article 6 the Universal Declaration of Human Right (UDHR) states that “Everyone has the right to recognition everywhere as a person before the law” and also under Article 7 the United Nations (UN) Convention on the Rights of the Child (CRC) states that: “The child should be registered immediately after birth and shall have the right from birth to a name (and) to acquire a nationality.” [2]. However, globally, every year 1 in the 3 newborns (40millions) children are born without being registered [3, 4, 5]. Consequently, key demographic, fertility and mortality statistics are not available on a continuous basis and do not cover large segments of the population [4].

All countries in Africa, except South Sudan, have laws and legal provisions for civil registration. However, in many countries the existing laws are outdated and not aligned to the recommended international standards. Several conferences were held in member states of Africa to improve and update legal provisions of civil
registration. Finally in June 2016, member States declared 2017-2026 as the “Decade for repositioning of civil registration and vital statistics in Africa” [5].

In Ethiopia, despite the creation of a law in 2012, a birth registration system hasn’t existed until 2016 [6, 7]; consequently, the births of around 2.9 million children every year are not legally recognized [8]. Following the member states revision on legal provision of civil registration, since 2016 vital event registration system is created in Ethiopia. Even if, Ethiopia with its 38,000 health extension workers already deployed on the ground and increasingly linked to communities through the Women’s Development Army had a unique opportunity to rapidly accelerate the coverage of birth registration but until the recent time, the rate of birth registration in Ethiopia was very low [9]. The closest thing to birth registration is done by hospitals and clinics but the data recorded can only serve administrative purposes [9]. Due to irregularity and limited coverage of birth registration services, the rate of registering was around 7 % [6, 9]. It is assumed that non-registration of Ethiopian children due to the lack of knowledge has contributing to the invisibility of children in the whole country, making the discrimination, neglect and abuse they experience go unnoticed, and leaving their deprivation, vulnerability and exploitation unaddressed [6, 7, 8].

In its place, policy makers and NGOs have a better awareness about birth registration as a fundamental right than community member does. Yet, only a few acknowledged birth registration as a right that must be universal and children have a relatively low level of awareness on the significance of birth registration [9].

Even though there is no published data to show, rate of birth registration is low in general Southern Nation Nationality People Region, and especially in study area Gamo Gofa and Zegene area people zone. According to vital event registering Agent
VERA report there are constraints in infrastructure, administrative capacity to register births, available funds for registration, and access to the population and technology for data management [10]. Very few studies have been conducted in communities in Ethiopia to determine the extent to which these vital events are registered. Therefore, this study aimed to examine the status of birth registration and its associated factors in Gamo Gofa and Zegene area people zone, SNNPR, Ethiopia.

Methods

2.1. Study Area, Period and Design

This study was conducted in the Gamo Gofa Zone and Konso Woreda which is found in Zegen area People Zone. Both are found in Southern Nation, Nationalities and Peoples’ Regional (SNNPR) state of Ethiopia. Gamo Gofa zone is organized by 15 Woredas and two town administrations (Arba Minch and Sawula town). Arba Minch (the capital of Gamo Gofa Zone) is located at a distance of 505 kms from Addis Ababa. Gamo Gofa Zone is characterized by mountains that reach 4200 meters in height and it make an area relatively difficult to reach, where the infrastructures (roads, communications) are relatively low. Arba Minch (the capital) is located at a distance of 505 kms from Addis Ababa. Based on the 2007 census population projection, the 2017 population for the Gamo Gofa zone was 2,043,668 (male: 1,013,533 and female: 1,030,135) [11]

Konso peoples are a Cushitic speaking group who live in the administrative territory of Southern Nations, Nationalities and Peoples’ region. It is one of the 5 woredas in Segen Area Peoples’ Zone. A Woreda has 43 kebeles of 41 are rural and 2 are towns. Karat is the town of the Woreda situated about 595Kms South of Addis
Ababa. The Segen River in the South, the Woito River in the West, Ale woreda in the North West, Derashe Woreda in the North, Burji Woreda in the South East and Borena in the East are borders for Konso [39]. The population of Konso Woreda is estimated to be 275,535 out of which 132,613 (48.13%) are males and 142,922 (51.87%) are female with annual growth rate of 2.9%. The report also affirmed that 95% of the Woreda population lives in the rural while the remaining 5% of the population dwells in urban areas. The major religions in Konso are Protestant, Orthodox and traditional African religion [12].

The study was conducted using community based cross sectional study design and the data was collected from primary sources on October 2018.

2.2. Population, sampling and sampling procedure

All head of households with under five children (their spouse or their guardian) in the study area were the source population. The household with under five children (their spouse or their guardians) in the in randomly selected Kebeles (small administrative unit) were the study population and individuals (spouses or guardians) who randomly selected and participated in study were sampled population. Spouses or guardians who were severely ill and unable to communicate during data collection were excluded from the study.

The sample size was determined by using Open Epi-Statcalc statistical software. Residence of the study participant was used as the most significant determinant of birth registration status from the study done by Mwango B. Chomba at Copper belt province of Zambia and the following assumption were considered [13]; the proportion of participants who have registered their child from urban residence (exposed group) are 16.36% and proportion of participants who have registered their
child from rural residence (non-exposed group) was 7.89%, Confidence level of 95%, 80% power with a minimum detectable alternative of ± 5%, OR of 0.42, ratio of one to one among unexposed to exposed was used. Accordingly, the calculated sample size was 474 participants. Assuming a non-response rate of 5%, a total minimum sample size needed for this study was 474* 0.05+ 474 = 498 households. Therefore, the minimum sample size required for the study was 498 households.

There were 44 kebeles in 7 Woredas (Arba Minch Town Administration, Kamba, Kucha, Dita, Chencha, Arba Minch Zuria and Konso Woredas) which are considered for this study. According to World Health Organization assessment tool, 14 kebeles (30% of the kebeles) were randomly selected by using lottery method and then the sample was proportional allocated for each selected kebele. To select these sampled households, the lists of the households were obtained from the registration book of family folder in the kebele. Then, the numbers of proportionally allocated households in each kebele were selected by simple random sampling technique by using table of random method from the list. The lists of selected households were reviewed and then by traced their address by the help of the guider from each kebeles. The spouses or the guardians were interviewed.

2.3 Data Collection and analysis

The data was collected using a structured interviewer administered questionnaire which was developed by reviewing different literatures. The tool has three sections; the 1st section was containing socio-demographic variables including age, gender, marital status, religion, ethnicity, residence, education status, occupation status, family size and income; the 2nd section was containing questions assessing the awareness of individual on the availability of birth registration service and birth
registration practice; the 2nd section was containing questions assessing practice of birth registration.

Questionnaires were originally written in English, however survey questions were offered in local languages, which were Amharic, Gamogna and Konso language. Hence, participants were allowed to answer in the language they found most comfortable. The tool was tested on 5% of the study participants in Mirab Abbaya district which was not included in this study, before the actual data collection the correction was incorporated.

The data was edited, coded and entered in to EpiData version 3.1 and exported to SPSS version 21.0 statistical software for analysis. Further, data cleaning (editing, recoding, checking for missing values, and outliers) was made after exported to SPSS. First, statistical assumptions of normality, heterogeneity and outliers were assessed both graphically and statistically. Then after, continuous variables were summarized using means and standard deviations while categorical variables were summarized using proportions to describe the characteristics of the study participants. Finally both bivariate and multivariable logistic regression analysis were conducted. A bivariate logistic regression analyses were performed for each independent variable with outcome of interest (practice of birth registration) to identify the associated variables. Upon the completion of the bivariate logistic regression analysis, variables with p-value <0.25 were selected for the multivariable logistic regression analysis and analysis were implemented. The adjusted odd ratios together with their corresponding 95% confidence intervals were computed and interpreted. All variables with p-value < 0.05 at multivariable logistic regression analysis were considered as determinate of practice of birth registration in the study area.
Results

3.1 Socio-Demographic Characteristics of the Study Participants

This study was conducted among 498 households with 100% response rate. The mean (±SD) age of study subjects was 37.38 (±10.36) years, where 193 (38.8%), 148 (29.7%) and rest 42 (8.4%) were age between 35 to 44, 25 to 34 years old respectively. Male respondents participated in this study was accounting 60.2% (300) of the participants. Similarly, most of the respondents 463 (93%) were married. In terms of religion they follow, majority of the respondents were Protestant 251 (50%) followed by Orthodox 237 (47.6%).

Regarding the level of educational, majority 221 (44.4%) of the respondents had no formal education followed by 144 (28.9%) with primary level (Grade 1- 8) education, 82 (16.5%) secondary level (9th-12th Grade) and only 51 (10.2%) of the respondents attended tertiary level (College diploma and above). Concerning the occupation of the respondents, round half 250 (50.2%) of the respondents were farmers, one fourth 130 (26.1%) of the study participants were housewife and 68 (13.7%) were government employee. The result has also shown that about 85.3% of participants were rural dweller while the rest 14.7% were living in urban (Table 1).

3.2 The Awareness of Study Participants on Birth Registration.

About one third of participated individuals 168 (33.7%) were aware of the services availability. However, the practice was found to be almost non-existent. More than half of individuals 87 (51.79%) in this study replied that media radio, television or newspaper) was the major source of information. Likewise, participants were asked
for the presence of birth registering institution and access to radio program on birth registration. However, only 110(22.1%) respondents knew the presence of birth registering institution in their respective kebele and only 26(5.2%) of the respondents have accesses to radio programs on local language (Table 2).

3.3 Magnitude of Birth Registration Practice among the Study Participants.

From the total respondents, 339(68.1%) have children less than five years, of these 161(47.5%) have one child, 153(45.1%) have two children and 25(7.4%) of the respondents have more than two children. Among who have under five children, only 41(12.1%) have registered child. However, from the total registered children about 11(26.83%) children were registered within 3 months after their birth and the rest 30(73.17%) were registered very lately. And also, among those parents who registered their children, 28(68.3%) have verified birth certificate of their children while the rest 13(31.7%) did not show the birth certificate of their children (Table 3).

This study indicating that only 12% of the respondents’ have registered children under the age of five, of which 8% have verified birth certificate, 2% explained that they have birth certificate and did not show the certificate while the rest 2 percent said that they have registered their children but have no any certificate. The majority 88% did not registered their child birth at all (Figure 1).

The magnitude of birth registration practice children age greater than five years old was determined. About 363(72.9%) of the respondents had at least a child age between 5 to 18 years. From those respondents who had child age between 5–18 years old; only 12(3.3%) of the respondents undertook registration for their children and have shown certificate, 42(11.6%) responded that they have registered their
children but did not show certificate, and the rest 309 (85.1%) of the respondents did not conducted registration for their children at all (Table 4).

3.4 Factors Associated with the Birth Registration of a Child < 18 Years Old

In the multivariate logistic regression analysis; sex, religion, level of education, awareness on presence of institution, radio program and VERA office dealing with birth registration have significant association with the birth registration (Table 5).

Discussion

The study aimed to assess status of birth registration and its associated factors in Gamo Gofa Zone and Konso Woreda. The practice of birth registration among under five children and children age between 5 to 18 years old were 12% and 14.9% respectively. The findings of current study maintain one of the lowest rates of birth registration for children age less than five years old in Africa including the other corners of Ethiopia. In the current study only 5.6% of children under the age of five years were registered and confirmed with birth certificate, which is far below the average for Sub-Sahara African (44%) [9], Neighbouring countries Kenya (60%) [14], Uganda (69%) [15], Nigeria (41%) [16] and Ghana (71.11%) [17]. The magnitude of birth registration for children age between five and eighteen years old was far lower than the finding of statistical report among similar age group from Mozambique (58.6%) [18].

In several studies, low level of birth registration was related to unavailability of mobile registration units, lack of Medias advocating birth registration and birth certificates were not needed to access basic services in the study areas. And also, it might be lack of political will or attention or structural intervention on the part of
government until the recent time 2016 [1] and lack of strategies integrating birth notification responsibility into the health sector at various levels. One of the factors affecting the rate of birth registration is lack of awareness about presence of birth registration organizations [1–4]. In the current study the level of awareness on birth registration was 33.7 %, which is lower than the finding of the study conducted in Ethiopia (92.8%) [1], and other countries finding including Nigeria (87.7%) [19] and India (86%) [20]. The low level of awareness of birth registration in the current study is related to the absence of structural intervention and less political commitment of the government till the recent time (2016), absence of strategies complementing the role of Vital Event Registration Agent (VERA) office with the health extension worker. Accordingly, they can play an important role in raising the awareness of community members (primarily pregnant mothers) of the importance of registering the births of their children soon after birth, i.e. on time registration. And also, lack of mechanisms that can address the number of well-established structures and indigenous institutions that exist in the community. It is including community care coalitions, edirs, mahibers, and equbs and one-to-five groups, development armies in the study area. The study depicted that male respondents were 61 % less likely involved in birth registrations than female respondents. The evidence was consistent with study conducted in Nigeria and Ghana [21, 22], in which more females than males reported registering child births. The reason was that females give care and pass more time with their children than the males. And also during antenatal care (ANC), labor and delivery, and postnatal care health worker provided information on birth registration for females in which males are less likely involved. Therefore, females
have better chance to access information on the importance of birth registration than males. Consequently, females were more likely practicing child birth registration than males.

The study indicates that traditional religion followers were less likely to register their children than Christian faith followers [19]. Remarkably, in this study Protestant participants were in average 2.3 times more likely practicing child birth registration that Orthodox participants. The finding was related to the higher number of Orthodox Christian participants than other religion participants in the current study. The study shows that there is a potential to address the problem through religious leaders as most of the respondents were christens.

As evidenced by normative and empirical findings indicating that maternal and/or paternal or guardians’ level of education improves the likelihood of children being registered at birth [17]. A mother’s education impact the likelihood that she will register the births of her children of either sex [23]. In this study, participant level of education has statistical significant correlation with practice of child birth registration. It was proved by literacy affected awareness of birth registration [19]; imply that the level of awareness on birth registration is increase with increase the level of education.

Many studies demonstrating that lack of awareness on presence of birth registration is contributing factor for the low rate of birth registration practices [1, 16, 17, 21]; however, this study show that awareness on the presence of birth registration has no statistical significant association with children birth registration practices. But, the study participants did not aware on the presence of institution providing birth registration services were 62.3% less likely practicing birth registration than the participants who were aware on the presence of institution working on birth
registration services, which is consistence with several studies [17–20].
The premise of advocating the importance of child birth registration using radio
program is to increase children birth registration practices [20]. The availability and
accessibility of Vital Event Registration agent (VERA) office in the community also
enhance child birth registration [22]. Likewise, the current study finding indicates
that the study participants distinguished the presence of radio program dealing on
birth registration in the study communities were more likely practicing child birth
registration than the counterpart. The same finding was observed among the
participants aware on the presence of VERA office in the study communities. It
implies that individuals aware on the presences of institution and radio program
dealing on birth registration were practicing birth registration.

Conclusion
To concluded, overall practice of birth registration in this study is far lower than
many studies from other countries. This study highlights that the awareness
regarding birth registration is inadequate among the study population, which is
evident by the low percentage of birth registration for both children age under five
years old, and age between 5 and 18 years old. Accordingly, being female, higher
level of education, aware on presence of radio program and institution dealing on
birth registration were identified as birth practice improving factors. However,
Orthodox Christian participants found to be negatively associated with child birth
registration practice, it implies that improvement should be made with religious
leader; whereas in this study age and marital status of the study participants were
not statistical significant with practice of child birth registration. Therefore, the
local government should work on the improvement of education sector, and create
mobile units working of birth registration awareness creation and practice.

Declarations

Ethics approval and consent to participate
Ethical letter were obtained from Arba Minch university institutional review board and support letter were obtained from research and community services Vis president of Arba Minch University. Finally, written consent was obtained from each participated individuals. Similarly, information was obtained after written consent taken from matured minor individual. i.e. age less than 18 years old and/ or early married or household head or guardians.

Consent to publish
Not applicable. But, we didn’t taken image, voice and video recorded at all. By considering the benefit of the study the findings is submitted for publication.

Availability of data and material
The datasets used and/or analyzed during for current study is available from the corresponding author on reasonable request.

Competing interests
The authors declare that they have no competing interests.

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Not received

Authors’ contributions
MS and SH design the original proposal, MS, SH, KG and TG were conducted analyses and interpretation. All authors were participated on discussion and recommendation part of study. MS was wrote final manuscript. Finally, all authors approved the manuscript.
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References
1. Plan (2005). Universal Birth Registration; A Universal Responsibility, United Kingdom
2. UNICEF (2000). Birth Registration, Right from the Start, Innocenti Digest, 2002. No.9, Italy
3. Universal birth registration. Available from: http://www.plan.org.au/ourwork/about/advocacy/ubr.
4. WHO (2010). Rapid assessment of national civil registration and vital statistics system, 2010 (WHO/IER/HSI/STM/2010.1)
5. APAI-CRVS (2016). Report on the status of civil registration and vital statistics in Africa.
6. THE REPORTER (14 Oct 2017). Vital Events registration/Birth Registration in Ethiopia. available at https://www.thereporterethiopia.com/article/first-steps
7. UNICEF (2016). Vital events registration kicks off. News Ethiopia; 04 August. Available at: https://www.unicef.org/esaro/media-centre_eth2016_vital-events.html
8. Plan (2000). Perception and practice; Review of Birth Registration in Addis Ababa and the Regional States of Oromia, Amhara and SNNPR, Ethiopia. Pg 1-
80. available at http://unstats.un.org/unsd/vitalstatkb/Attachment698.aspx?
AttachmentType = 1

9. VEERA and CSA (2014). Establishing vital events registration and strengthening. A case study of Ethiopia. Available at http://getinthepicture.org/sites/default/files/resources/eth_crvs_case_study_2014.pdf

10. Zonal Health (2018). Annual report. Unpublished data. Available at Zonal Heath Office

11. Gamo-Goffa Zone health departement. 2017. Gamo-Goffa Zone Health departement: Annual report

12. Kansite Gellebo. 2011. Moora: A study of public places and its multiple functions among the Konso of Southern Ethiopia. M.A thesis: Addis Ababa University, Unpublished

13. Chomba Mwango B.2016. Determinants of birth registration among mothers in selected rural and urban communities of the Copper belt Province, Zambia. Thesis report.

14. UNICEF.2018. Child protection.

https://www.unicef.org/infobycountry/kenya_statistics.html accessed on November 20, 2018

15. UNICEF. 2016. Birth registration in Uganda. available at https://www.unicef.org/uganda/Birth_reg_print(2).pdf

16. Olusesan Ayodeji , Bolanle Olapeju, Osondu Ogboji, Stella Babalola. 2016. Trends in the completeness of birth registration in Nigeria: 2002–2010, http://www.demographic-research.org/Volumes/Vol35/12/ DOI: 10.4054/DemRes.2016.35.12

17. Fidelia A. A. Dake1 and Kamil Fuseini. 2018. Registered or unregistered? Levels
and differentials in registration and certification of births in Ghana. BMC International Health and Human Rights. 18:25 https://doi.org/10.1186/s12914-018-0163-5

18. Mozambique report. 2011. Vital Statistics Report from a Mission to the National Statistical Institute of Mozambique

19. Ekaete A. Tobin, Andrew I. Obi1, Essy C. Isah. 2013. Status of birth and death registration and associated factors in the South-south region of Nigeria, Annals of Nigerian Medicine / Jan-Jun 2013 / Vol 7

20. Sahil R Parmar, Arjunkumar H Jakasania, Dinesh M Rathod. 2016. A knowledge, attitude and practice study on registration of birth and death among the field practice area of department of community medicine B. J. Medical College, Ahmedabad. RJIF, 2016; 2 (7). 53-56

21. SA Adedini, CO Odimegwu. 2011. Assessing knowledge, attitude and practice of vital registration system in South-West Nigeria. IFE PsychologIA, 19(1).

22. Abdul-Aziz IbnMusah, ZakariaAbdulai, Mohammed Dawuni, Abdulai Abdul-Hanan. 2015. Evaluation of the Effect of Birth and Death Registration on Health Service Delivery (A Case of Tolon District of Ghana). Journal of Health Science 2015, 5(2): 32–41

23. IRDC. 2018. Irina Dincu, ShaidaBadiee, Deirdre Appel.. Birth registration is the basis for advancing gender equality and children’s rights

Tables

Table 1:-Socio demograhic characteristics of the study participants on status of birth registration in Gamo Gofa Zone and Konso Woreda, SNNPR, Ethiopia, 2018.

| Variables | Categories | Frequency (n) | Percent (%) |
|-----------|------------|---------------|-------------|

19
| Age (Year) | 15-24  | 42   | 8.4 |
|-----------|--------|------|-----|
|           | 25-34  | 148  | 29.7|
|           | 35-44  | 193  | 38.8|
|           | 45+    | 115  | 23.1|
| Sex       | Male   | 300  | 60.2|
|           | Female | 198  | 39.8|
| Marital status | Married | 463  | 93.0|
|           | Divorced | 18   | 3.6 |
|           | Other (Single, Widowed) | 17   | 3.4 |
| Ethnicity | Gamo   | 390  | 78.3|
|           | Gofa   | 13   | 2.6 |
|           | Konso  | 69   | 13.9|
|           | Amhara | 8    | 1.6 |
|           | Other (Oromo, Gurage, Silte) | 18   | 3.6 |
| Educational status | No formal education | 221  | 44.4|
|           | Primary | 144  | 28.9|
|           | Secondary | 82   | 16.5|
|           | Tertiary | 51   | 10.2|
| Religion  | Orthodox | 237  | 47.6|
|           | Protestant | 251  | 50.4|
|           | Others (Muslim, Catholic) | 10   | 2.0 |
| Occupation | Farmer | 250  | 50.2|
|           | Housewife | 130  | 26.1|
|           | Government Employee | 68   | 13.7|
|           | Other* | 50   | 10.0|
| Residence | Urban | 73   | 14.7  |
|-----------|-------|------|-------|
| Rural     | 425   | 85.3 |       |

*Student, Private, Non-government organization employee

*Table 2:* Status of awareness on birth registration in Gamo Gofa Zone and Konso Woreda, SNNPR, Ethiopia, 2018
| Variables                                      | Categories                        | Frequency (n) | Percent (%) |
|------------------------------------------------|-----------------------------------|---------------|-------------|
| Awareness of birth registration               | Yes                               | 168           | 33.7        |
|                                                | No                                | 330           | 66.3        |
| Source of information                          | Health Post                       | 57            | 11.4        |
|                                                | Health Centre                     | 13            | 2.6         |
|                                                | Media                             | 87            | 17.5        |
|                                                | Other (Hospital and Neighbor)     | 11            | 2.2         |
| Awareness of birth registration institution    | Yes                               | 110           | 22.1        |
|                                                | No                                | 171           | 34.3        |
|                                                | Don't aware                       | 217           | 43.6        |
| Radio program on birth registration           | Yes                               | 26            | 5.2         |
|                                                | No                                | 240           | 48.2        |
|                                                | Don't aware                       | 232           | 46.6        |
| Presence of VERA office                        | Yes                               | 77            | 15.5        |
|                                                | No                                | 186           | 37.3        |
|                                                | Don't aware                       | 235           | 47.2        |
Table 3: Practice of birth registration among study participants who have under five child in Gamo Gofa Zone and Konso Woreda, SNNPR, Ethiopia, 2018
| Variables                                      | Categories                        | Frequency(n) | Percent (%) |
|-----------------------------------------------|-----------------------------------|--------------|-------------|
| Children < 5 years                            | Yes                               | 339          | 68.1        |
|                                               | No                                | 159          | 31.9        |
| Number of children per household (< 5 years)  | 1 Child                           | 161          | 47.5        |
|                                               | 2 Children                        | 153          | 45.1        |
|                                               | ≥ 3 Children                      | 25           | 7.4         |
| Registration of the youngest child of < 5 years (339) | Yes                              | 41           | 12          |
|                                               | No                                | 298          | 88          |
| Registration age of the youngest child (41 children) | ≤ 3 months                      | 11           | 26.8        |
|                                               | >3 months                         | 30           | 73.2        |
| Birth Certificate (41 children)               | Verified                          | 28           | 68.3        |
|                                               | Reported but not verified         | 6            | 14.6        |
|                                               | Registered but not have certificate | 7         | 17.1        |
| Place of Birth for young child                | Hospital                          | 48           | 12.9        |
|                                               | Health Centre                     | 129          | 34.7        |
|                                               | Health Post                       | 22           | 5.9         |
|                                               | Home                              | 168          | 45.2        |
|                                               | Private                           | 5            | 1.3         |
| Reason for not registering children (< 5 years) | Unavailability of registration center | 172      | 57.7        |
|                                               | Lack of awareness                 | 100          | 33.6        |
|                                               | Other                             | 26           | 8.7         |
Table 4: Practice of birth registration for children age between 5 to 18 years old in Gamo Gofa Zone and Konso Woreda, SNNPR, Ethiopia, 2018

| Variables                        | Categories                  | Frequency (n) | Percent (%) |
|----------------------------------|-----------------------------|---------------|-------------|
| Children (5 to 18 years)         | Yes                         | 363           | 72.9        |
|                                  | No                          | 127           | 25.5        |
| Number of children per household | 1                           | 74            | 20.4        |
|                                  | 2                           | 135           | 37.2        |
|                                  | 3                           | 83            | 22.9        |
|                                  | 4                           | 44            | 12.1        |
| Category                                           | Response                      | Count | Percentage |
|----------------------------------------------------|-------------------------------|-------|------------|
| Registered children age 5 to 18 years (363)        | Yes (Showed certificate)      | 12    | 3.3        |
|                                                   | Yes (Not showed certificate) | 42    | 11.6       |
|                                                   | No                            | 309   | 85.1       |
| Satisfaction on birth registration service        | Very good                     | 11    | 12.8       |
|                                                   | Good                          | 15    | 17.4       |
|                                                   | Poor                          | 60    | 69.8       |
| Decision for birth registration                    | Father only                   | 2     | 2.3        |
|                                                   | Mother only                   | 15    | 17.4       |
|                                                   | Mother and father             | 51    | 59.3       |
|                                                   | Mother or father              | 18    | 20.9       |
| Cost of birth registration                         | Very high                     | 3     | 3.5        |
|                                                   | Very low                      | 27    | 31.4       |
|                                                   | Fair                          | 26    | 30.2       |
|                                                   | Free                          | 30    | 34.9       |
| Time spent for birth registration                  | Too long                      | 9     | 10.5       |
|                                                   | Moderate                      | 55    | 64.0       |
|                                                   | Fair                          | 15    | 17.4       |
|                                                   | Other                         | 7     | 8.1        |
| Distance of birth registration site                | < 10Km                        | 78    | 90.7       |
|                                                   | Between 10Km-30Km             | 8     | 9.3        |
Table 5: Bi-variable and Multivariable logistic regression for practice of birth registration in Gamo Gofa Zone and Konso Woreda, SNNPR, Ethiopia, 2018

| Variables       | Categories                        | Registration Status (<18 yrs) | COR (95% CI)               | AOR (95% CI)               |
|-----------------|-----------------------------------|------------------------------|-----------------------------|-----------------------------|
|                 |                                   | Yes (%)                      | No (%)                      |                             |
| Age (Year)      | 15-24                             | 8(26.7)                      | 22(73.3)                    | 1                           |
|                 | 25-34                             | 27(19.1)                     | 114(80.9)                   | 0.651(0.262, 1.620)         | 0.853(0.271, 2.683)         |
|                 | 35-44                             | 41(22.3)                     | 143(77.7)                   | 0.788(0.327, 1.902)         | 1.289(0.397, 4.179)         |
|                 | 45+                               | 10(9.4)                      | 96(90.6)                    | 0.286(0.101, 0.809)         | 0.670(0.174, 2.578)         |
| Sex             | Male                              | 43(15.3)                     | 238(84.7)                   | 0.576(0.359, 0.923)         | 0.389(0.212, 0.713)*        |
|                 | Female                            | 43(23.9)                     | 137(76.1)                   | 1                           | 1                           |
| Religion        | Orthodox                          | 29(13.2)                     | 191(86.8)                   | 1                           | 1                           |
|                 | Protestant                        | 55(23.8)                     | 176(76.2)                   | 2.058(1.256, 3.374)         | 2.358(1.308, 4.250)*        |
|                 | Others(Muslim, Catholic)          | 2(20)                        | 8(80)                       | 1.647(0.333, 8.139)         | 2.301(0.361, 14.659)        |
| Educational status | No formal education              | 23(11.1)                     | 184(88.9)                   | 0.409(0.183, 0.913)         | 0.27(0.355, 0.967)*        |
|                          | Primary       | Secondary     | College and above | Awareness of birth registration | Awareness of birth registration institution | Awareness of radio program on birth registration | Awareness of Presence of VERA office |
|--------------------------|---------------|---------------|-------------------|---------------------------------|---------------------------------------------|-----------------------------------------------|----------------------------------|
|                          | 34(25.4)      | 18(24.7)      | 11(23.4)          | Yes                             | Yes                                         | Yes                                           | Yes                              |
|                          | 100(74.6)     | 55(75.3)      | 36(76.6)          | 45(29)                          | 43(41.7)                                    | 11(47.8)                                      | 38(50.7)                        |
|                          | 1.113(0.510, 2.426) | 1.071(0.453, 2.531) | 1                  | 110(71)                         | 60(58.3)                                    | 12(52.2)                                      | 37(49.3)                        |
|                          | 0.649(0.061, 0.198)* | 2.408(0.831, 6.980) | 1                  |                                 | 0.277(0.157, 0.489)                        | 0.125(0.065, 0.238)                          |                                 |
|                          |               |               |                   |                                 | 0.378(0.234, 0.610)                       | 0.377(0.119, 0.299)*                          |                                 |
|                          |               |               |                   |                                 | 2.016(0.764, 5.317)                       | 0.266(0.078, 0.910)                          |                                 |
|                          |               |               |                   |                                 | 0.326(0.136, 0.782)                       | 0.764(0.256, 0.379)*                          |                                 |
|                          |               |               |                   |                                 | 0.790(0.215, 2.904)                       | 0.790(0.215, 2.904)                          |                                 |
|                          |               |               |                   |                                 |                                             | 0.133(0.053, 0.335)                          |                                 |
|                          |               |               |                   |                                 |                                             | 0.790(0.215, 2.904)                          |                                 |
|                          |               |               |                   |                                 |                                             | 0.242(0.083, 0.711)*                          |                                 |
|                          |               |               |                   |                                 |                                             | 0.242(0.083, 0.711)*                          |                                 |
|                          |               |               |                   |                                 |                                             | 0.102(0.036, 0.284)                          |                                 |

Figures
Figure 1

Percentage distribution of study participants on birth registration status of their child under five in the study area during data collection, 2018.