

Effective Modalities to Improve Pregnant Women's Compliance to Daily Iron Supplementation



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Abstract

Prenatal Iron Supplementation (PIS) has a paramount contribution for reducing maternal mortality. The coverage and compliance in Ethiopia is 17.3% and 0.4% respectively (3). The aim of this study was to determine the coverage of and adherence to prenatal IFS (Iron Folic acid Supplementation) and to identify factors affecting utilization of the service.

The formative research was conducted in eight selected woredas/districts, namely Alamata, Enderta, Menze Mama, Menze Gera, Ada Berga, Meta Robi, Sankura and Meskan. The study applied descriptive cross-sectional design with quantitative and qualitative elements targeted at determining the coverage and adherence of IFS and identifying factors affecting utilization of IFS.

Among women who gave birth in the preceding year, 40.1% took iron tablets during the pregnancy. The coverage exceeded 50% in Sankura, Enderta and Alamata Woredas; whereas, only one-in-three and one-in-ten women were supplemented in Menze Gera and Menze Mama woredas respectively. However, only 3.6% of them took the supplement for the recommended 90 or more days.

The coverage among women who gave birth in the preceding year and among women who were pregnant at the time of the survey was 40.1% and 38.5%, respectively. Lack of adequate stock and poor logistic system, lack of training for frontline health workers on ANC, lack of BCC and job aid materials, fear of side effects, fear of taking medication during pregnancy, lack of awareness on the benefits of the supplement have contributed for the low coverage and adherence to PIS.

Introduction

Many studies documented the adverse effects of maternal anemia [1]. According to WHO, 12.8% and 3.7% of maternal mortality in Asia and Africa respectively is directly attributable to anemia [2]. In Ethiopia reasonable number of studies witnessed the public health significance of maternal anemia [3]. Accordingly, in confirmation of the WHO recommendation [4], the national guideline for control and prevention of micronutrient deficiencies highlights the need of daily Iron-Folate Supplementation (IFS) for at least 6 months during pregnancy and 3 months postpartum [5]. According to Ethiopia Demographic Health Survey (EDHS) 2011, the coverage and compliance of IFS is rather disappointing as only 17.3% of women took the supplement during their recent pregnancy in the preceding 5 years of the survey and only 0.4% took the supplement for more than 90 days of pregnancy [6]. Despite the assumption that IFS is an integral part of prenatal care, only 37% ANC followers received IFS [6]. This formative research is designed to assess coverage and adherence to IFS and the potential barriers of its utilization at various levels in 8 selected woredas of Ethiopia.

Methodology

A cross-sectional descriptive quantitative survey among 1600 women who gave birth in the preceding year of the survey to determine the coverage of and

adherence to prenatal iron supplementation, and a qualitative study which comprised In-depth Interviews (IIs) and Focus Group Discussions (FGDs) aimed at identifying factors affecting utilization of prenatal iron supplementation, were applied. This study was conducted in eight selected woredas of Tigray, Amhara, Oromiya and SNNP regions. Namely the woredas were Almata, Enderta, Menze Mama, Menze Gera, Ada Berga, Meta Robi, Sankura and Meskan.

Results

Among women who gave birth in the previous year of the survey, 40.1 % (95% CI: 37.7-42.5%) took iron tablets during the recent pregnancy. The coverage exceeded 50% in Sankura, Enderta and Alamata Woredas; whereas, only one-in-three and one-in-ten women were supplemented in Menze Gera and Menze Mama woredas respectively. On average women start the supplement at the 5.5 (\pm 1.7) gestational months and this was comparable across the study woredas. In the current study, only 3.6% of the women took the supplement for more than 90 days during pregnancy and the post-partum period.

Table 1: Coverage and average time for initiation of prenatal iron supplementation in 8 selected woredas, March 2012

Woreda	Iron supplementation coverage (% (95% CI))	Proportion who took the supplement > 90 days (% (95% CI))	The average gestational month for initiating iron supplementation
Enderta	51.2 (44.3-58.1)	3.5 (1.0-6.0)	5.6
Alamata	60.1 (53.4-66.8)	3.9 (1.2-6.6)	5.2
Menze Mamma	10.1 (5.5-14.7)	1.8 (0.0-3.8)	6.0
Menze Gera	35.0 (28.9-41.1)	3.0 (0.8-5.2)	5.9
Ada Berga	37.5 (30.8-44.2)	2.0 (0.1-3.9)	5.6
Meta Robi	20.9 (15.3-26.5)	0.5 (0.0-1.5)	5.7
Meskan	31.0 (24.6-37.4)	3.0 (0.6-5.4)	5.6
Sankura	70.0 (63.8-76.2)	12.6 (8.1-17.1)	5.6

Among those who took iron supplements during the recent pregnancy, most women (57.8%) consumed 30 or fewer of iron tablets, 12.3% between 31 and 60 tablets, 13.7% between 61 and 90 tablets, and 16.1% claimed to consume 90 or more tablets. Those women from Menze Mama woreda consumed the least number of IFA tablets, whereas, one-third of women from Meskan woreda claimed to consume more than 90 tablets (Table 2).

Table 2: Number of tablets consumed by iron supplemented women in eight selected woredas, March 2012.

Woreda	Number of iron tablets consumed (%)			
	\leq 30 tablets	31- 60 tablets	61 - 90 tablets	>90 tablets
Enderta	53.3	20.0	13.3	13.3
Alamata	33.3	23.8	28.6	14.3
Menze Mamma	100.0	0.0	0.0	0.0
Menze Gera	62.5	12.5	12.5	12.5
Ada Berga	54.5	18.2	9.1	18.2
Meta Robi	80.0	0.0	0.0	20.0
Meskan	50.0	0.0	16.7	33.3
Sankura	29.4	23.5	29.4	17.6

Results (Continued)

All 335 women who took iron supplement during the recent pregnancy were inquired to rate their adherence to the supplement. The majority (91.2%) reported that they were taking the supplement on daily basis, 1.1% used to miss 1 or more tablets per week, 4.4% stopped taking the tablet and 0.3% did not take any. The major reasons for non-adherence of stopping the drug were failure to get adequate supply for the health institutions (61.7%), occurrence of side effects (20%), forgetfulness (15%), and fear of side effects (1.3%).

Conclusion

Of women who gave birth in the preceding year, only 40.1% took prenatal iron supplementation and 16.1% consumed 90 or more tablets during the pregnancy. Likewise, among pregnant women on IFS, 28.7% missed two or more tablets in the preceding 15 day. Non-adherence occurs due to forgetfulness, fear of side effect, fear of medication during pregnancy, inadequacy of drug supply and lack of awareness on the benefits of IFS.

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