

# COMMUNITY-BASED INTEGRATED INTERVENTIONS IMPROVE COVERAGE OF AND COMPLIANCE WITH IRON SUPPLEMENTATION IN NEPALI WOMEN



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## BACKGROUND

The prevalence of Anemia among pregnant women in Nepal is alarmingly high at 75%. The most important cause of anaemia during pregnancy is an inadequate dietary intake of iron. Because diet alone is not sufficient to meet iron requirements during pregnancy, it is the government's policy therefore to provide iron/folic acid (IFA) tablets on a daily basis to all pregnant women, from beginning of the second trimester through 45 days after delivery. In 2001, coverage was only 23% and compliance negligible. The main constraints were lack of awareness of the importance of preventing and treating anemia and access to IFA tablets at community level. The government consequently modified its supplementation policy in 2002, expanding distribution of IFA tablets for pregnant and post-partum women through Female Community Health Volunteers (FCHVs). Coherent with this change in policy environment, an interagency task force including Micronutrient Initiative and UNICEF put resources together to assist the government to implement IFA distribution through the FCHV network.

## AIM

To significantly increase coverage and compliance of iron supplementation by making the IFA tablets easily accessible and acceptable.

## FRAMEWORK

Past experience has demonstrated that in Nepal a successful integrated community-based program improves coverage and compliance of iron supplementation. An integrated community-based program of micronutrient interventions, involving FCHVs in distribution of IFA tablets was launched by the Department of Health Services (DHS). In addition, the program activities include counseling and awareness raising on the importance of micronutrients for mothers and their children, repacking of IFA tablets in small containers, postpartum vitamin A supplementation, as well as counseling on antenatal check-ups, deworming, use of adequately iodized salt and dietary diversification.

The program with new delivery mechanism is launched in a district with organization of training sessions for all concerned stakeholders, health workers and FCHVs of the district. An NGO, the Nepali Technical Assistance Group, has been entrusted with the task of providing initial training and logistic support. Immediately after the training, FCHVs start identifying pregnant women and providing them with IFA tablets (Figure 1). Pregnant women can conveniently obtain the tablets either from health facilities or FCHVs of their wards. There are specific checks in place to make sure that they get tablets from only one source. The health facilities and FCHVs also repack tablets in small 30-tablet plastic containers and give them to pregnant women asking them to bring the container for a recount and refill each month. Both health facilities and FCHVs maintain standardized registers with the names of enrolled clients. This is the basis for recording the coverage under the Health Management Information System.

## OUTCOMES

Phase one of this program was launched in five priority districts in 2003 with external financial and technical support. Baseline (2003), interim 1 (2004), interim 2 (2005) and endline surveys (2006) were done to evaluate the program outcomes. Coverage during the second and third trimesters of pregnancy and postpartum increased from 27, 47 and 23% at baseline respectively to 73, 84, and 73% at endline (Figure 2). Similarly, compliance among women in the second and third trimesters of pregnancy and during postpartum increased from 9, 29, and 8% at baseline respectively to 31, 76, and 36 percent at endline (Figure 3). Compliance was defined as consumption of at least 80% of prescribed IFA tablets. Deworming of pregnant women also increased from 2 percent at baseline to 43 percent at endline. Likewise, post partum vitamin A supplementation increased from 26 percent to 70 percent (Figure 4). Improvements in other program objectives, such as utilization of antenatal care (ANC) services were also observed (Figure 5). Coverage and compliance with supplementation and deworming did not change significantly in the control district (not shown).

Supply, supervision and monitoring components have been incorporated into the routine activities of government health care services and FCHVs network leading to long term sustainability. The program can be considered cost-effective, as the cost of launching the program (for initial trainings and logistics but excluding cost of IFA tablets) was just about US\$ 0.30 per

pregnant woman. The success of the first phase of the program has led to the phase-wise expansion of this model to 40 districts out of total 75 by March 2007 (Figure 6).

## IMPLICATIONS

Micronutrient Initiative, UNICEF and other organizations have plans to accompany the government of Nepal in further expansion of this model during 2007-08. The Ministry of Health and Population of Nepal, has accorded top priority to IFA supplementation and is committed to procure sufficient IFA tablets with assistance from donor agencies (i.e. German Development Bank (KfW), World Bank and UNICEF) and with its own budget to meet the increased demand which has resulted from intensified programme activities. Other programmes such as the Nepal Family Health Programme and a development project called SAHAKARYA (from a Nepali word meaning 'working together') have also joined the iron intensification program by contributing in the on-going monitoring process through their existing field staff.

As it is imperative to step up the action, the government has planned nationwide program implementation by 2010. It is expected that the program will definitely help reduce anemia prevalence among pregnant women by about 33%, which in turn will help reduce maternal mortality rates of Nepal in the years to come.

## ACKNOWLEDGEMENTS

The authors wish to acknowledge their appreciation to the dedicated staff of the Ministry of Health and Population of Nepal, the enthusiasm of the Female Community Health Volunteers, and our partners for also believing in this project.

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1. Ministry of Health, UNICEF, WHO, MI, and New ERA. Nepal Micronutrient Status Survey, 1998.
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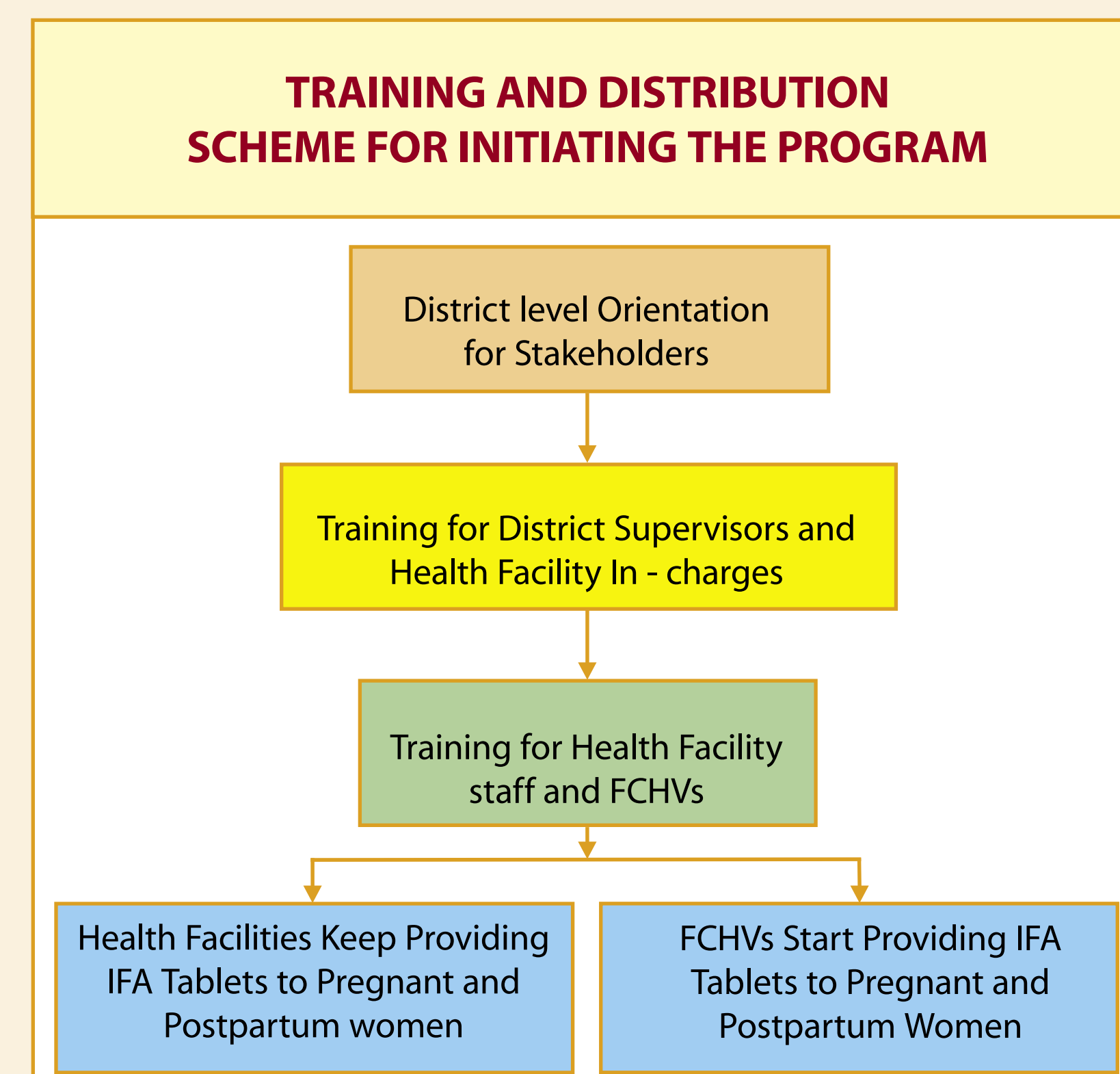


Fig. 1

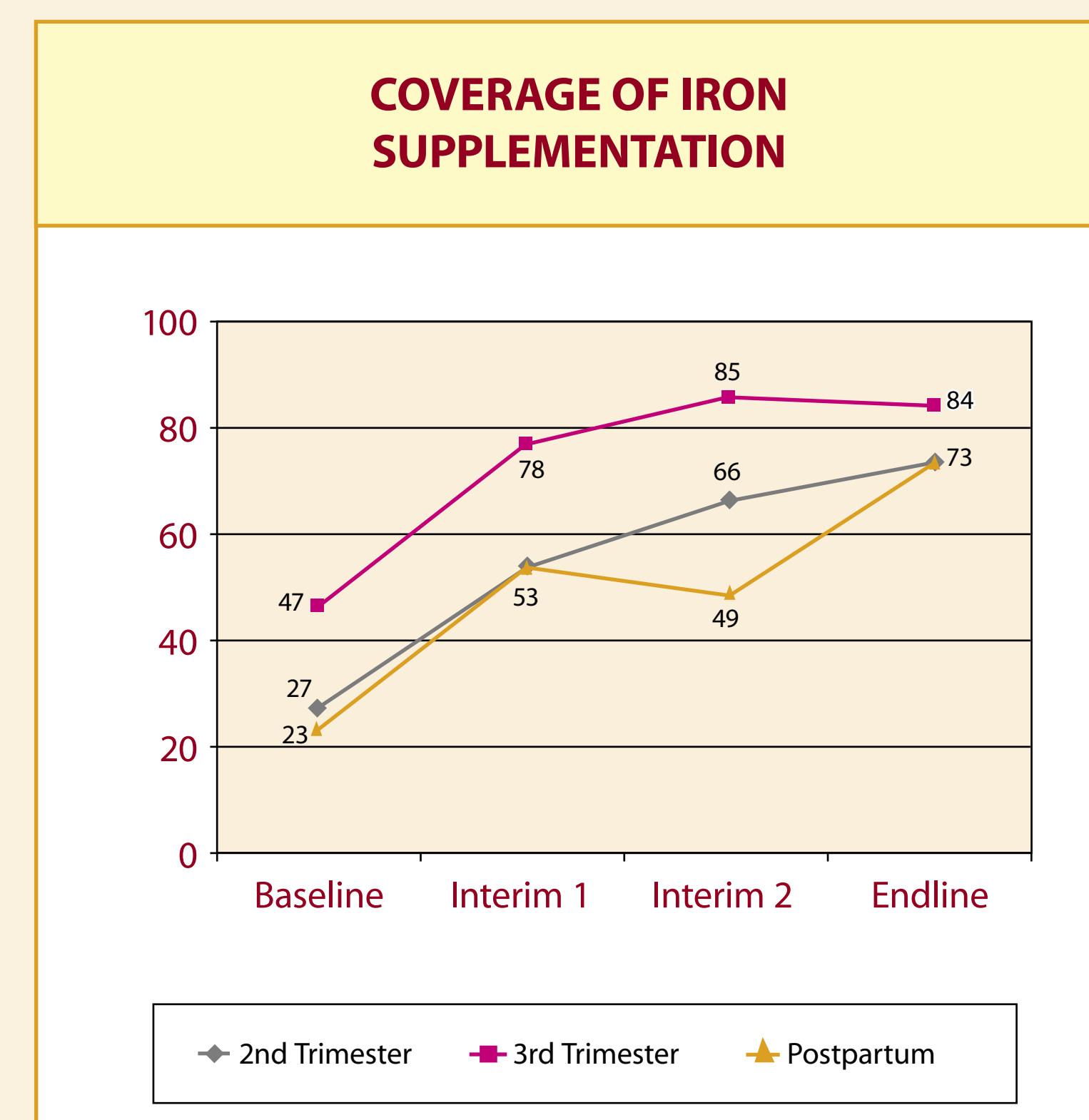


Fig. 2

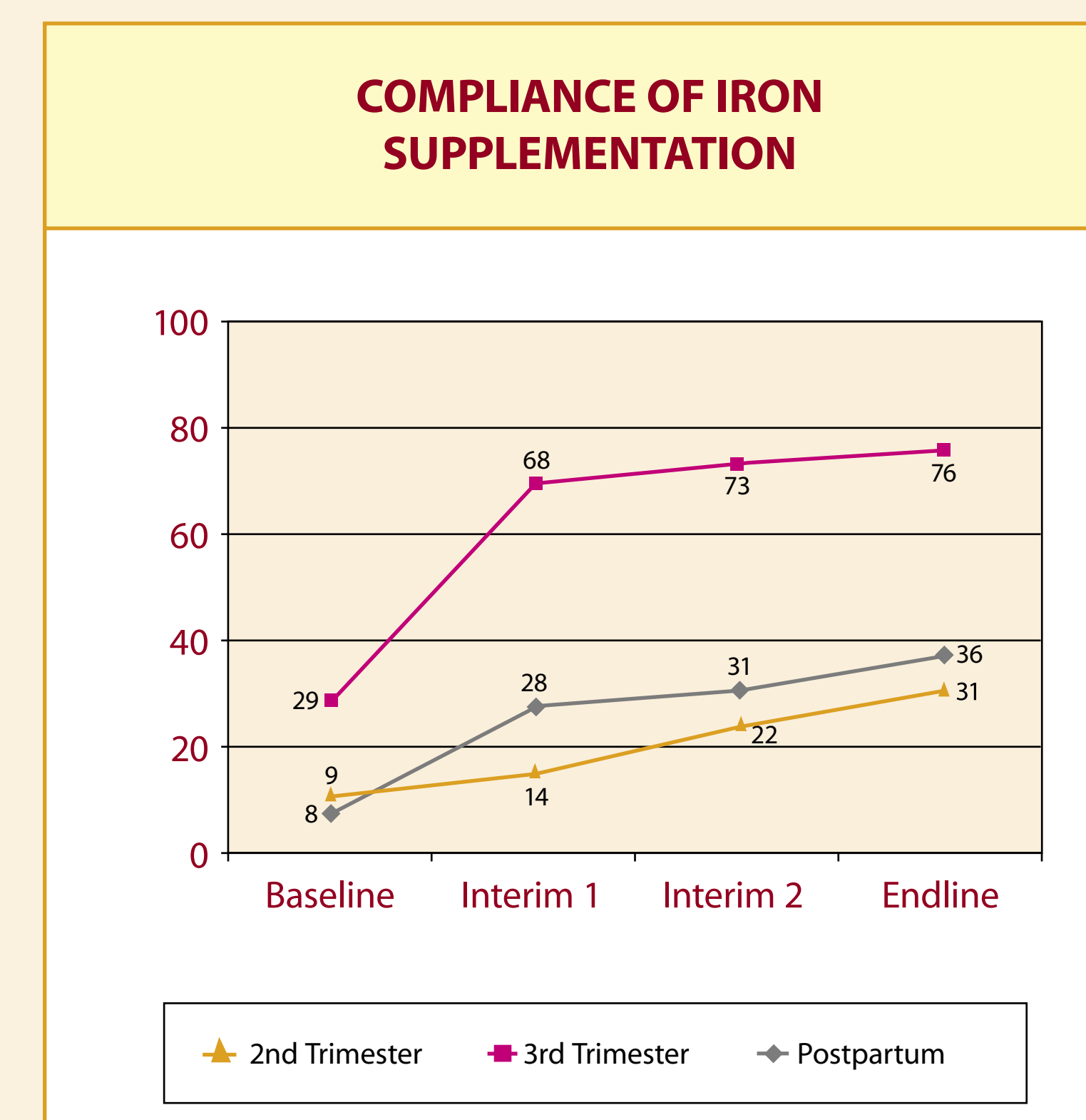


Fig. 3

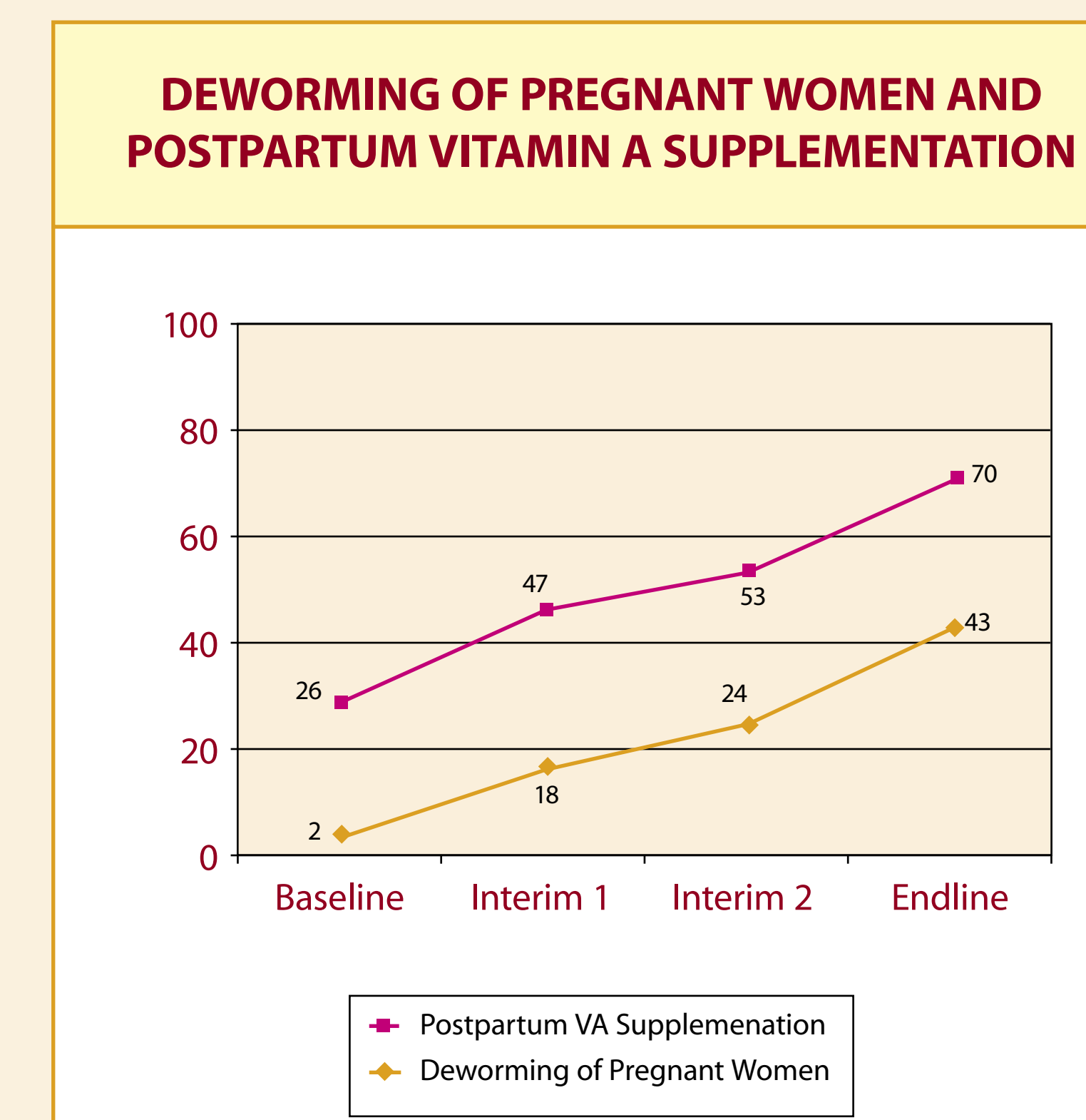


Fig. 4

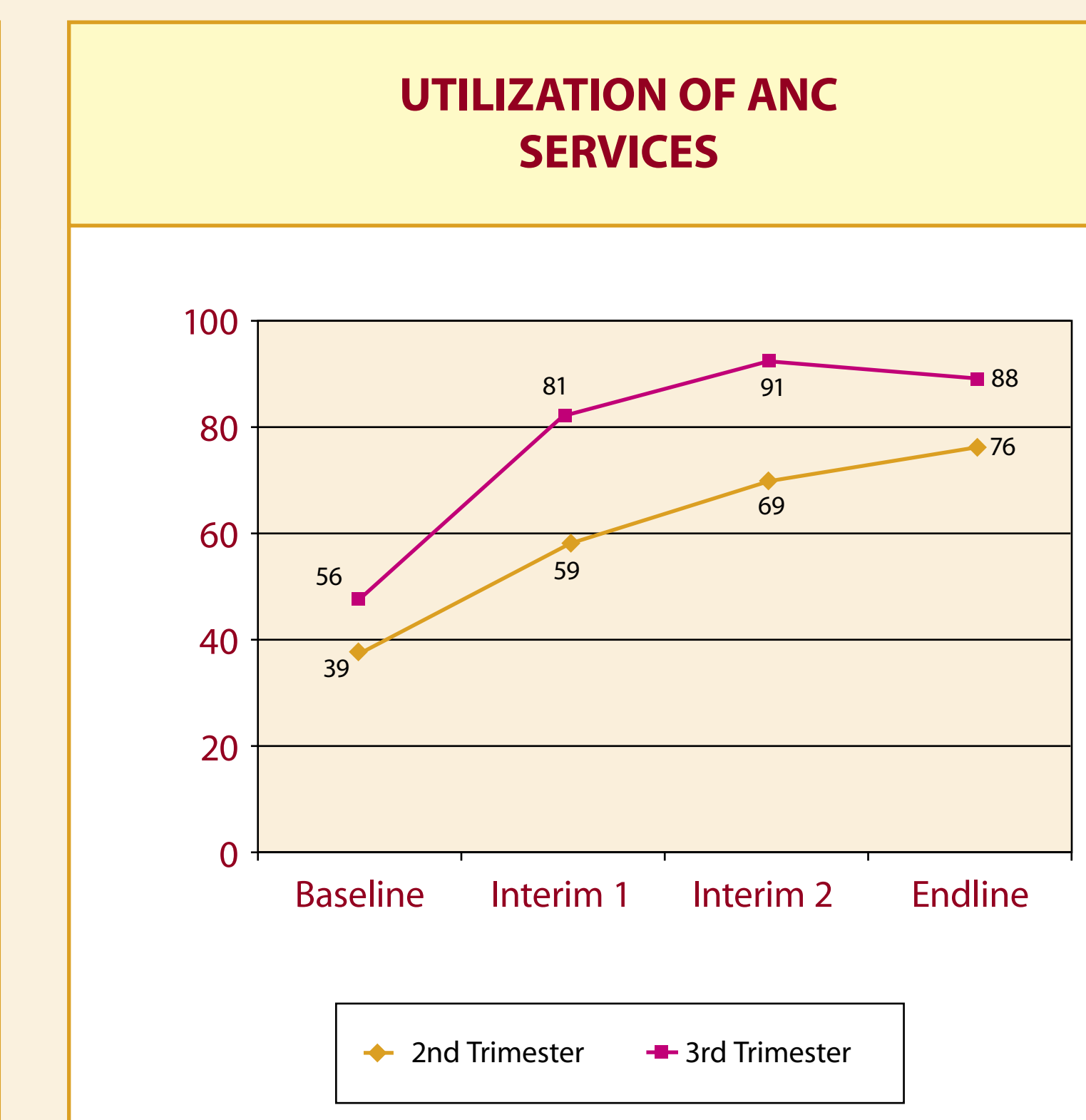


Fig. 5

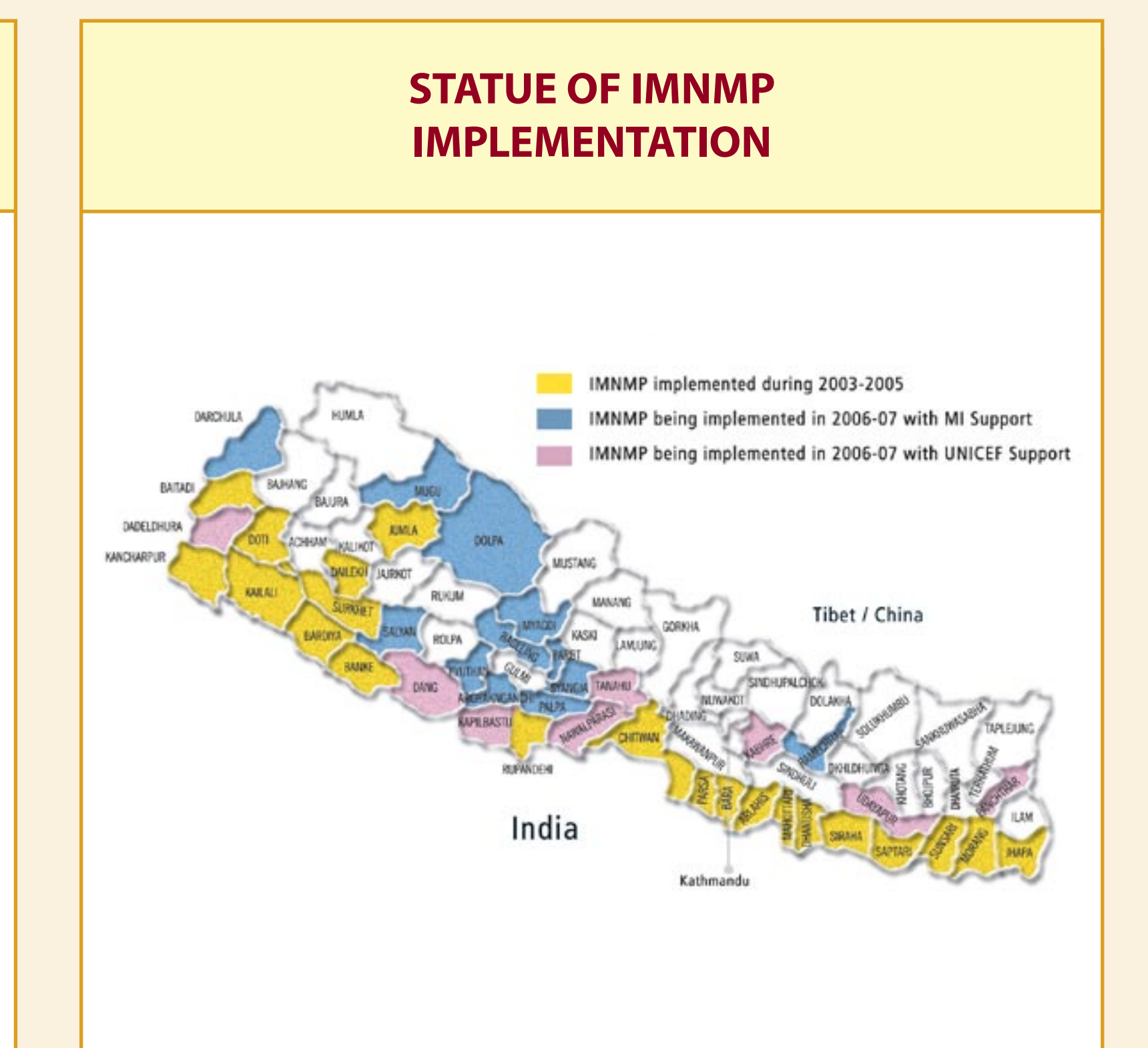


Fig. 6