

**Methodology:** The study was on a quasi-experimental design. Based on the national priorities, epidemiological data, implementation feasibility, and client preferences, eight components of essential services were identified. The existing national and international guidelines and protocols were reviewed and adapted. Providers from three clinics of an NGO and three government dispensaries (GOD) were trained on the newly-adapted protocols. These clinics were monitored by a physician regularly. For comparison, the activities of the clinic staff at the two non-intervention NGO sites and two non-intervention government sites were also monitored. A mid-term evaluation, conducted after a year of implementation, was based on the data from the pre-and post-training knowledge tests, structured observations of provider-client interactions, analysis of the clinic records, and interviews with providers and with clients.

**Results:** The results of the evaluation indicated that the intervention markedly improved the diagnostic and treatment practices of the service providers. There were marked improvements in the prescription patterns, with a reduced misuse of antibiotics for the management of diarrhoea, acute respiratory infection (ARI), and reproductive tract infection along the lines suggested by the protocols. After the introduction of the protocols, inappropriate use of metronidazole was reduced from 86% to 31% in diarrhoea cases, and inappropriate use of antihistamine was reduced from 77% to 18% in ARI cases. These changes were not observed or were less pronounced in the comparison clinics. However, the providers stated that the protocols were easy to follow, but had increased the waiting time at the clinics.

**Conclusion:** The practice of following standard protocols improves the quality of services. However, the comments of the providers need to be analyzed further. Complementary subsystem interventions (quality of the physical facility, logistics, information and management support system) are needed to implement the protocols fully.

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## Use of Antenatal Care in an Urban Area of Dhaka City

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**Objective:** Describe the types, patterns and use of antenatal care (ANC) in an urban area of Dhaka city.

**Methodology:** A community-based study of antenatal care-seeking behaviour was conducted during February-June 1996. A sample of 200 women who were pregnant for at least six months was identified from an ongoing health and demographic surveillance system set up in Zone 3 of the Dhaka city. A pre-tested structured questionnaire was used for collecting information on the sociodemographic characteristics, reproductive history, and the ANC use patterns. In-depth interviews were also conducted among a subsample (n=16) of these women to understand the process of seeking ANC.

**Results:** Most study women (88%) received some form of ANC. However, about a quarter received only tetanus immunization (TT), and less than 10% received all the necessary elements of ANC as recommended by the Government of Bangladesh. In addition, half of the women made only one or two visits, and only one-third made the first visit during their first trimester. A diverse variety of health-care providers was used by the study women. While most women obtained ANC from modern providers, about a quarter used traditional providers, either alone or as an adjunct to the care given by modern providers. Factors affecting the use of ANC suggest that the women who were more educated had fewer children, and whose husbands had more schooling and who had higher monthly income were more likely to use ANC ( $p < 0.05$ ). Women's ANC-seeking behaviour seems to follow a four-stage process: recognition of the importance of ANC, stance to seek ANC, selection of a provider, and finally, seeking ANC.

**Conclusion:** Although the findings of the study reveal that the TT coverage among the pregnant women was high in urban Dhaka, other ANC services were very weak. The results of the study also suggest that there is still ample room for improvement in the delivery and organization of antenatal care, particularly in the process of client-provider interaction.

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## Incorporation of Checklists in Clinic Information System Supports the Delivery of Quality Essential Health Services

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**Objective:** Assess the impact of introducing a revised clinic information system on the quality of essential health services provided at the urban NGO clinics.

**Methodology:** A card-based client-oriented information system for the urban primary-level NGO clinics was developed that incorporated screening checklists on key elements of a number of essential services. Thus, there were checklists on screening for family planning methods, antenatal and postnatal check-up, assessment of reproductive tract infection cases, and assessment of children with diarrhoeal disease and acute respiratory tract infections. The system was tested in 1996 at the two primary-level clinics of a non-governmental organization (NGO) in Dhaka city. The study was quasi-experimental with another two urban primary-level clinics where service records were kept in registers, serving as comparison. Data for evaluation were collected through independent observations and review of the clinic cards.

**Results:** In the intervention clinics, in nearly 85% of the new clients seeking injectable contraceptives, the paramedics carried out the minimum required screening. Almost all (98%) of the pregnant women were screened as per the organization's guidelines, and important physical examinations were done in about 69% of the cases. In the comparison clinics, none of the clients who came either for injectable contraceptives or for antenatal check-up received the full range of screening procedures. Before the introduction of the protocol for syndromic diagnosis of RTI cases in the intervention clinics and after the training on the protocol, the diagnosis made by the paramedics was based mostly on the amount of vaginal discharge and the condition of cervix. With the introduction of checklist on RTI, in about 92% of the cases with vaginal discharge, syndromic diagnosis was made according to the protocol, based primarily on the characteristics of vaginal discharge and the partner's symptoms.

**Conclusion:** Incorporating checklists in a client-oriented routine record-keeping system assisted service providers to follow assessment protocols according to the organizational standards.

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