study suggest that low birth weight is still a problem, and that lack of mothers' education and spontaneous premature delivery are associated with low birth weight in rural Bangladesh.

Effects of Age, Duration of Illness and Infecting Species on the Pathology of Fatal Childhood Shigellosis

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Objective: Understand the pathogenesis of the complications and the pathophysiologic mechanisms involved in the persistence of the diarrhoeal illness, and determine the severity of colitis associated with infection due to different species of Shigella, on the basis of results from the recent series of autopsies.

Methods: At the ICDDR,B’s Dhaka-based hospital, the Clinical Research and Service Centre, over 100,000 diarrhoea patients are seen annually. At the histopathology laboratory, autopsies are conducted on a sub-sample of patients who die in the hospital.

Results: Infants with infection due to Shigella flexneri more often presented with watery stool and bacteraemia than did the older children. Large areas of deep ulceration of the colonic mucosa and even ulceration involving the entire colonic mucosa were common in infantile S. flexneri infection. Hypoproteinaemia and bacteraemia in such cases may be the consequences of exudation of proteins through the denuded colonic mucosa and loss of the protective mucosal barrier. Cases with a prolonged course of diarrhoeal illness were found to have persistent mucosal abnormalities, including large areas of deep ulceration of the colonic mucosa. In contrast to S. flexneri infection, S. dysenterae type 1 infection was generally associated with higher instances of shock, leukocytosis, azotaemia, severe hypoproteinaemia, intestinal obstruction associated with transmural inflammation of colon, and disseminated intravascular coagulation. They also had significantly higher frequencies of pseudomembranous inflammation of the terminal ileum and colon, severe necrotizing haemorrhagic colitis, microvascular thrombosis of the mucosa and submucosa of colon, and glomerular capillary thrombosis. An association of infantile S. dysenteriae 1 infection with severe necrotizing haemorrhagic colitis, leukaemoid reaction, and development of glomerular capillary thrombosis with or without haemolytic-uraemic syndrome was apparent.

Conclusions: A routine programme of autopsies helps clinicians better understand the underlying complications associated with fatal cases of diarrhoeal illnesses.

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Awareness of Transmission and Prevention of Sexually-Transmitted Diseases Among Rural Women in Bangladesh

Mehrab Ali Khan, Mizanur Rahman, Parveen Akhter, and Barkat-e-Khuda

Objective: Study the awareness of sexually-transmitted diseases (STDs) among rural women and family planning field workers.

Methods: The MCH-FP Extension Project of ICDDR,B works with the Government of Bangladesh, conducting operations research to improve health and family planning service-delivery. A sample of over 6,000 married women of reproductive age in three project sites was surveyed during 1994 to examine their awareness of STDs. Both bivariate
and multivariate analyses were done to examine the effects of some socio-demographic factors associated with the awareness of STDs. Family planning workers were interviewed through focus group discussions to determine their attitudes, beliefs, and knowledge about condom use and its effect on STDs.

**Results:** About 30% of the sample women knew about syphilis and/or gonorrhoea. Among them, about 30% stated that syphilis, and 13% stated that gonorrhoea, are transmitted through sexual activities and contact with previously infected persons. The remaining 57% were not aware of the transmission mechanisms. Although condom use was low, 37% of condom users reported that condom use can prevent STDs. Awareness and knowledge of transmission of STDs were significantly higher among educated and relatively older women than others. The focus group discussions indicated that family planning and health care service providers have some knowledge of the mechanism of transmission of STDs. They think that condom use should be promoted as a method of fertility regulation as well as for prevention of STDs.

**Conclusions:** Very little is known about STDs in rural Bangladesh. The incidence of STDs may increase with the increase in employment-related migrations. Findings of the study suggest that health and family planning workers already have some knowledge about STDs, and should undertake activities to provide counselling about the mechanisms of transmission and prevention of STDs.

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**The Pattern of Full and Complementary Breast-Feeding in Rural Bangladesh**

AI Chowdhury, Andres de Francisco, and KMA Aziz

**Objective:** Examine the sociodemographic characteristics of mothers in relation to the varying durations of breast-feeding.

**Methods:** The source of data was the Maternal and Child Health-Family Planning Project in Matlab, Bangladesh. In the project area, improved health and family planning services were provided and relevant data were collected. This analysis is based on 6,033 births which took place in 1985 and 1986.

**Results:** It is hypothesized that the durations of full and complementary breast-feeding are not uniform across socioeconomic levels, which might have an influence on the health of the child and subsequent timing of conception by the mother. The mean durations of full and complementary breast-feeding were 4.8 and 28.8 months respectively. The durations of full and complementary breast-feeding were shorter for younger mothers and those having fewer living children. Mother’s level of education had a significant impact on the duration of breast-feeding; educated mothers had fully and complementarily breastfed, respectively, 1.5 and 5 months shorter than uneducated mothers.

**Conclusions:** Programmes related to infant health and nutrition, and family planning, need to be undertaken in such a way that the pattern of prolonged breast-feeding observed among older mothers, mothers with more living children, and among the uneducated mothers can be used as a good example for other women.