biopsy or conization. Overt carcinoma of the uterine cervix was not found in this population, probably because of three factors: (1) this is a generally young population who would not be expected to have advanced disease, (2) the virtual absence of women with advanced cervical carcinoma probably reflects the effect of cancer screening programmes on the general population attending many different health facilities in New York City, and (3) it is probable that women with symptoms seek medical attention at hospitals or physicians' offices and do not think of Planned Parenthood centres as a treatment facility.

Routine annual examinations of cervical and vaginal cytology specimens were begun on all women at the onset of this study in October 1965, and the initial cytological screening was completed by July 1967. Previous to that cytological screening at Planned Parenthood centres had been performed routinely only for those women who wished to wear an intrauterine device. For this reason the analysis of prevalence rate data could not include the latter group. Only those women using the diaphragm and those using oral steroids for contraception were compared.

Collection of cytology specimens

The cytology specimens were obtained with cotton-tipped applicators, one from the cervix and endocervix and another from the vaginal pool; each was smeared on a separate glass slide and both slides were fixed immediately in 95% ethyl alcohol. The slides were taken by messenger to the Memorial Hospital, where they were stained, screened, and evaluated under the direction of two of us (M.R.M. and L.G.K.). Reports of the examination were mailed back to the centre.

Collection of clinical data

Clinical data necessary for this study, including a detailed record of the contraceptive method(s) used, were taken from each woman's chart at the Planned Parenthood centre when the cytology specimen was collected. In the case of new patients this information was contained in answers to specific questions on an initial history form that was filled in by trained interviewers who see each new applicant. This form also contains the examining physician's notes and prescription or recommendation, and a carbon copy accompanies the cytology specimen.

In the case of women who had been attending the centre before the start of the study an abstract was prepared from their chart and from a special supplemental question form filled in by the interviewer when the first cytology specimen was taken. For all of the women subsequent cytology specimens were always accompanied by a carbon copy of the interval notes that had been recorded in the chart.

Questions were included concerning five factors that were chosen as the most reliable and most important of those known to influence the prevalence rate of cervical carcinoma: age, ethnic origin, age at first pregnancy (as a reflection of early sexual experience), number of children born alive (as a reflection of the number of pregnancies), and net weekly family income (as a reflection of socio-economic status) (Lombard and Potter, 1950; Wynder *et al.*, 1954; Jones *et al.*, 1958; Haenszel and Hillhouse, 1959; Terris and Oalmann, 1960; Rotkin, 1962; Rotkin and King, 1962; Boyd and Doll, 1964; Christopherson and Parker, 1965). It was felt that answers to direct questions about sexual experience, particularly age at first coitus, frequency of coitus, and number of different sexual partners would not be reliable, and that in this population the number of marital partners for each woman could not be estimated by the number of legal divorces and marriages. In order not to discourage unmarried women from attending Planned Parenthood centres, a direct question about marital status was not included. Indirectly this was obtained during the course of the interview by requesting the husband's first name. Twenty per cent of the women coming to the centres failed to supply the husband's first name and these at least were thought to be unmarried. This was considered as a possible sixth factor, but most of these women were young and, after correcting for age, there was no association between choice of contraceptive or the prevalence of cervical carcinoma in situ and failure to supply a husband's first name.

Information regarding circumcision status of their marital partners, available only in interviews with the women, was considered to be too unreliable to be used.