



Decreasing Barriers to Contraceptives in School Based Clinics

Adolescent pregnancy in the City of Minneapolis, Minnesota, is a major public health issue. In 1997, the pregnancy rate for 15-17 year olds in Minneapolis was 79.4 per 1000.¹ In comparison, the state-wide pregnancy rate in Minnesota for the same age group was 32.0 per 1000, and the national rate was 57.1 per 1000.² According to the 1998 Minnesota Student Survey,³ 34% of Minneapolis 9th graders and 55% of 12th graders had engaged in sexual intercourse. Of those, only 46% and 63% respectively reported always using birth control. However, the majority of pregnancies in this age group are reported to be unintended.^{4,5} These data suggest a large unmet need for comprehensive education and service delivery to prevent unintended pregnancies in this population.

The Minneapolis Department of Health and Family Support (MDHFS) has been providing on-site services in Minneapolis Public Schools through school-based clinics (SBCs) since 1979. These clinics, in five traditional high schools and two alternative high schools, are staffed by multidisciplinary teams including physicians, nurse practitioners, registered nurses, social workers, and nutritionists. The SBCs offer care that is age-appropriate, convenient, and barrier-free, including physical exams, sports physicals, treatment of minor illnesses and injuries, reproductive health services, and the coordination of care with primary care providers. All family planning services at the SBCs incorporate counseling to help students make decisions about their sexual behavior and make sure that students requesting contraception have an understanding of how to use the method and reduce their risks of pregnancy and sexually transmitted infections (STIs).

Services students are eligible to receive from a SBC are specified by the type of consent they have

on file. At the beginning of each school year, consent forms are sent home. Parents can elect to have their child receive all services offered by the SBCs, all services except for contraceptive counseling and birth control prescriptions, or no services. If parents do not return the consent form, students can receive confidential services such as pregnancy testing, contraceptive exams and prescriptions, STI education, diagnosis and treatment in accordance with Minnesota state law.

In an effort to decrease the high rates of pregnancy among Minneapolis adolescents, the SBCs began distributing contraceptive supplies (condoms, oral contraceptives and Depo Provera) in May 1998. Prior to this time, students had been provided vouchers to pick up contraceptive supplies for no cost at other community clinics. Under the voucher system, students had two weeks to pick up the prescription before the voucher expired. Nurses knew anecdotally that many prescriptions were not being picked up by students. The new policy of direct distribution was a response to the barrier to access experienced by students under the voucher system.

This paper examines two research questions to evaluate the effects of the policy change undertaken in 1998:

- Were students more likely to receive contraceptives under the direct distribution system than under the voucher system?
- Did the demand for contraceptives increase under the direct distribution system?

This latter question was examined to address concerns that direct delivery of contraception would signify an endorsement of sexual activity and thereby increase demand for contraceptives among students.

METHODS

To examine the effect of the direct distribution system on receipt of contraceptives, data were collected through a retrospective chart review. Study sites included the clinics run by MDHFS in five traditional high schools and the study population included all students from two graduating classes who visited a clinic to request contraceptives during the study period. Charts were selected for review if there was a documented request for contraception at any clinic visit. Charts were selected into two groups based on students' year of graduation. The first group consisted of students from the graduating class of 1998 who had requested contraceptive services during the last two years of the voucher system (school years 1996-97 and 1997-98). The second group consisted of students from the graduating class of 2000 who requested contraceptive services during the first two years of the direct distribution system (school years 1998-99 and 1999-2000). Each group contained approximately 150 students (149 in voucher group and 153 in direct distribution group) when they were juniors and seniors in high school. Male students were included in the analysis for students requesting condoms. There were 35 males in the voucher group and 28 males in the direct distribution group. Males are included in the total number of students.

To assess the effect of the delivery system on students' receipt of contraceptives, we used two measures. First, we computed the proportion of contraceptives requested (all methods combined) that were actually received by the students. Second, we computed method-specific proportions of contraceptives requested that were actually received. To assess the demand for contraception under both delivery systems, we computed both the proportion of all students enrolled in the school that made any request for contraception and the mean number of requests among those students.

The data collection for this project was approved by the Institutional Review Board at the University of Minnesota.

FINDINGS

Overall Receipt of Contraceptives

Under the voucher system 59% of students who requested a method of birth control during the study period actually received at least one of their requests, with 42% receiving all of their requests. Under the direct distribution system, 99% of students received all of their requested contraceptives (Table 1).

Condoms

Under the voucher system, only 25% of students filled all of their condom vouchers. Under the direct delivery system, 100% of students who requested condoms received them (Table 1). Measures of receipt of condoms did not differ by gender under either system

Hormonal Methods

Under the voucher system, 50% of students filled all of their vouchers for oral contraceptives. Of the remaining students, 5% filled a portion of the vouchers, and 45% did not fill any vouchers for oral contraceptives. Under the direct delivery system, 100% of students requesting oral contraceptives received them. Under the voucher system, six of eight students (75%) requesting Depo-Provera received the injections, compared to 100% (n=29) under the direct delivery system (Table 1).

Combined Methods

Requests for two methods at one time (a hormonal method and condoms) were grouped together. Under the voucher system, 60% of students making these requests received all of their requests, compared to 98% under the direct distribution system (Table 1).

Demand for Contraceptives

The proportion of students that requested birth control at the SBCs was 11% in each of the two study periods, suggesting that demand did not increase under the direct distribution system. Additionally, students made more requests for birth control under the voucher system than under the direct distribution system. Among students who requested any contraceptives, the mean number of requests during the study period was 1.68 under the voucher system compared to 1.40 under the direct delivery system (Table 2). The higher number of requests under the old system was most likely due to unfilled, expired, or lost vouchers.

Table 1
RECEIPT OF CONTRACEPTIVES
UNDER THE VOUCHER SYSTEM
(CLASS OF 1998)
AND THE DIRECT DISTRIBUTION SYSTEM
(CLASS OF 2000)

	Voucher (n = 149)	Direct Distribution (n=153)
<i>Receipt of contraceptives requested (all methods)</i>		
Received all of requests	62 (42%)	153 (99%)
Received some of requests	26 (17%)	0
Received none of requests	61 (41%)	1 (1)%
<i>Receipt of contraceptives requested (by method)</i>		
CONDOMS		
Received all of requests	21 (25%)	77 (100%)
Received some of requests	7 (8%)	0
Received none of requests	55 (66%)	0
ORAL CONTRACEPTIVES		
Received all of requests	11 (50%)	48 (100%)
Received some of requests	1 (5%)	0
Received none of requests	10 (45%)	0
DEPO-PROVERA		
Received all of requests	6 (75%)	29 (100%)
Received some of requests	1 (12%)	0
Received none of requests	1 (12%)	0
COMBINED (HORMONAL AND CONDOMS)		
Received all of requests	40 (60%)	46 (98%)
Received some of requests	14 (21%)	0
Received none of requests	13 (19%)	1 (2%)

Table 2
DEMAND FOR CONTRACEPTIVES
UNDER THE VOUCHER SYSTEM
(CLASS OF 1998)
AND THE DIRECT DISTRIBUTION SYSTEM
(CLASS OF 2000)

	Voucher (n=149)	Direct Distribution (n=153)
Enrolled students who requested contraceptives	149 (11%)	153 (11%)
Number of times a student requested contraceptives during study period		
1 time	95	112
2 times	24	24
3 times	19	14
4 times	9	3
5+ times	2	0
Average number of requests per student	1.69	1.40

DISCUSSION

These data suggest that under the direct delivery system, receipt of contraceptives increased to nearly 100% while the demand for contraceptives did not appear to increase. Although we were unable to assess actual use of contraception, the results are strikingly positive and suggest that the direct delivery system has the potential to have a major impact on rates of unintended pregnancy in this population.

Our findings are consistent with previous studies indicating that contraceptive availability through schools does not increase sexual activity.^{6, 7} In addition, a national review of school-based pregnancy prevention programs concluded that programs that provide clear messages and one-on-one counseling in conjunction with direct provision of contraceptives are likely to increase contraceptive use without increasing sexual activity.⁸ The data reported here indicate that on-site contraceptive delivery effectively removes a key barrier to adolescents' access to contraception without increasing demand. A national survey recently found that only 18% of school based health centers in secondary schools actually dispense birth control pills and about 28% dispense condoms.⁹ Our findings indicate that school based health centers like those in Minneapolis may be highly effective at decreasing barriers for sexually active adolescents in accessing contraceptives.

The findings should be interpreted in light of some study limitations. The number of school clinics involved was relatively small and may limit generalizability. The study design did not include concurrent comparisons, leaving open the possibility of confounding by time trends in sexual activity and contraceptive use. However, the consistency of our findings with previous studies helps reduce these concerns.

The fact that only 11% of students in the schools utilized the SBCs for contraceptive services while over 50% are estimated to have been sexually active suggests that the SBCs need to function as part of a diverse system to meet students' contraceptive needs. Because the proportion of students requesting contraceptives remained constant under both delivery systems and the actual receipt of requested contraceptives increased under the direct delivery system, there is evidence that the direct delivery system was an effective strategy to improve rates of contraception and prevent pregnancy among those who use the clinics. It may be the case that the students who utilized the SBCs for contraception would have been unlikely to obtain contraception if forced to seek supplies from community-based sources, as suggested by reports of unfilled vouchers under the old system. This suggests that the SBCs are likely to be providing a key service to students who need it most, and that direct delivery of contraception at SBCs can be a vital part of a multipronged effort to reduce adolescent pregnancy.

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¹ Minneapolis Department of Health and Family Support, 1997.

² Centers for Disease Control and Prevention. National and State-Specific Pregnancy Rates Among Adolescents – United States, 1995-1997. *MMWR Morb Mortal Wkly Rep.* 2000; 49: 606-611.

³ Minnesota Department of Children Families and Learning, 1998.

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