Factors Influencing the Success of a Community VD Program Held in a University Facility

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REPORTED GONORRHEA CASES increased nationally by about 30 percent between 1972 and 1975 (*1*). Michigan experienced a similar increase; however, in Washtenaw County, population 250,000, the change was far more dramatic (*2,3*), as shown in the following table (the numbers of cases are per 100,000 population).

Gonorrhea morbidity and incidence	*United States*	*Michigan*	*Washtenaw County*
Morbidity:			
1972	767,215	24,749	785
1975	999,937	32,583	1,783
Percent change	+30.3	+13.6	+127.0
Incidence:			
1972	371.6	273.0	325.5
1975	472.9	356.4	708.1
Percent change	+27.2	+30.5	+117.5

Since the actual numbers of gonorrhea cases were probably underreported, especially the national and State ones, direct comparisons with the county figures were difficult. The Washtenaw County Health Department officials, however, believed that gonorrhea was reaching epidemic proportions. The question, then, was how best to meet the county's needs for clinical venereal disease services on a cost-effective basis.

Under Michigan law, county health departments must provide medical care to indigent persons with dangerous communicable diseases (*4*). Toward this end, health departments in the more heavily populated counties had been operating VD clinics. In Washtenaw County before 1972, the VD control program was limited to a reimbursement system that permitted local physicians to bill the county health department for examination or treatment, or both, of indigent persons. However, few physicians or patients actually knew about this system, and even fewer used it. At that time, county VD reports totaled 500–600 cases of gonorrhea and about 70 cases of syphilis a year (*5*).

In 1972, when more Federal money became available for venereal disease control activities, the Michigan Department of Public Health implemented a gonorrhea control project by providing personnel and program support funds to high-incidence target counties. Specifically, the department representatives set up gonorrhea screening programs for women, initiated epidemiologic interviews and contact tracing with gonorrhea patients, and provided information and education programs for local organizations.

In Washtenaw County, the gonorrhea screening project obtained 46,000 specimens for culture at 38 provider sites during 1973, the first full year of the project. In 1974, a county-funded health department VD clinic was opened for the eastern section of the county (the town of Ypsilanti) 9 hours a week. The Washtenaw County Health Department also began to promote actively the use of the reimbursement program. These intensified efforts contributed to the sizable increases in the number of reported cases. Among Michigan counties between 1972 and 1975, Washtenaw rose in rank from 9 to 3 in gonorrhea incidence (*6,7*).

By early 1976, the increase in reported gonorrhea cases became a special concern at several of Washtenaw County's health facilities—the county health department, the University of Michigan's student health service (University Health Service), and three local hospital emergency rooms. From 1974 to 1975, the gonorrhea caseload had increased 15 percent in the county

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The project described in this paper resulted from a contract between the University Health Service, under the directorship of Robert E. Anderson, MD, and the Washtenaw County Health Department, under the directorship of John B. Atwater, MD, DrPH.

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as a whole, 53 percent at the county health department VD clinic, and a staggering 260 percent at hospital emergency rooms in the central portion of the county (Ann Arbor).

As shown in the following table, 17 percent of the gonorrhea patients in 1975 were seen at Ypsilanti, the county-funded clinic where health education and epidemiologic services were available. On the other hand, 22 percent of the gonorrhea patients were seen at hospital emergency rooms where education and followup were minimal.

	Percent of patients	
Places of treatment for gonorrhea patients	*1975*	*1977*
County-funded VD clinics:		
Ypsilanti	17.2	23.0
University Health Service	11.9	29.9
Emergency rooms	21.6	11.9
Hospital outpatient clinics	17.1	12.7
Community health centers	12.7	7.5
Private physicians	10.8	9.3
Private family planning clinics	3.1	2.9
Other	5.3	2.9

Hospital personnel were greatly inconvenienced by the need to use county reimbursement procedures that were not compatible with their billing systems. Also, in 1975 the county VD reimbursement fund of $25,000 was overspent by $10,000, largely because of emergency room billings of from $35 to $70 per patient. Thus, more appropriate and less expensive VD treatment resources were needed in the central area of the county.

The VD diagnosis and treatment policy at the University Health Service (UHS) in 1975 included University of Michigan students and their partners, but not members of the community at large. In 1975 the UHS reported 12 percent of the total county gonorrhea caseload and billed the county for 2,000 VD examinations at $7.06 each—a total of about $14,000. However, most of this money was spent for clerical time because the UHS had to document and bill the county for each examination separately. Simultaneously, the UHS was being pressured by the Board of Regents to increase its capacity to generate its own revenue. This pressure was a consequence of reductions in State allocations to the university for nonacademic services.

UHS-Washtenaw County VD Contract

In the winter of 1976, in an attempt to increase revenue and make the UHS more cost effective, the director of the UHS approached the director of the Washtenaw County Health Department with a proposal that eventually led to a new VD program. The UHS offered to provide VD clinic services to all county residents, particularly those in the central portion, in exchange for a lump-sum payment from the department's reimbursement fund. With this arrangement, the health department then limited reimbursement payments to other health care providers to $20 a visit. Since the minimal emergency room charge was $35, the county hoped to direct indigent VD patients away from the emergency rooms and toward the county clinic in Ypsilanti or the UHS clinic in Ann Arbor, thus providing more comprehensive care for VD patients at a lower cost. The emergency rooms were willing to cooperate in this endeavor, with the assurance that there were now adequate facilities for referral.

The formal contract, stipulating the objectives of both the UHS and the Washtenaw County Health Department, was signed in August 1976 for the new VD clinic. The health department's objectives were:

- To foster provision of adequate VD services to a population of a quarter million people. A relatively youthful population (average age 24) and a highly transient population, owing to the five colleges and many automobile manufacturing facilities within the county borders, made VD control difficult. In this context, VD services needed to include clinic hours at various times of the day, rapid diagnosis and treatment, VD education, and a clinic atmosphere that would encourage use of the facility by the community.
- To reduce, if possible, or at least to contain the increasing gonorrhea incidence in Washtenaw County.
- To reduce the total cost of providing VD services to county residents.

The University Health Service's objectives were:

- To provide a valuable community service to residents of the county.
- To increase UHS revenue to partially compensate for reductions in State allocations.
- To decrease UHS operating costs of VD services by reduction of administrative expenditures as a result of greater efficiency.

In addition, the contract stipulated that the new UHS program provide:

- Walk-in service 6 days (50 hours) a week, including some mornings, afternoons, and evenings.
- Onsite diagnostic services for gonorrhea, syphilis, and other sexually transmissible diseases such as candidiasis, trichomoniasis, venereal warts, herpes genitalis, and pubic lice.
- Treatment at no charge to clients with gonorrhea or syphilis.
- VD education for each client.
- Individual counseling for those infected with a sexually transmissible disease.
- A mechanism for eliciting anonymous, written evaluations of services from clients using the VD clinic.
- Periodic summaries of service statistics to be prepared by the UHS.

The Washtenaw County Health Department agreed to pay the UHS $24,000 a year from the county VD reimbursement fund. The State health department would continue to supply culture media, antibiotics, and field epidemiology.

Planning the VD Program

The UHS Department of Health Education was centrally involved in planning for the implementation of the VD program. This involvement stemmed from the concept that health education focuses not only on the traditional role of the health educator in the delivery of educational services to clients but also on the broader role of a process consultant who is integrally involved in program planning and staff development.

Before the VD contract was awarded, the two UHS health educators participated in meetings on contract negotiations and on other considerations relevant to instituting the new program. Subsequently, the health educators became part of a core planning group that included a UHS staff administrator and the director of the county VD control program. The staff administrator's knowledge of the patterns and logistics of service delivery within the UHS and the extensive experience of the county director in the development of VD programs complemented the health educators' knowledge of educational and interpersonal processes. Thus, this four-person team possessed the skills necessary for planning the implementation and evaluation of a community VD program.

This core group believed that a large measure of the eventual success of the VD program would depend on careful planning. Further, the success of the planning process would depend on the extent to which the concerns of both providers and consumers who would be affected by the program could be elicited and accommodated. The core group believed that careful planning was particularly essential for a VD program because of the sexual and emotional dimensions that potentially could discourage the search for treatment and the delivery of effective services.

The core planning team met with representatives from all UHS organizational units to elicit feedback and suggestions on the implementation of the VD program. Of special interest were concerns about client education, diagnosis, and treatment of sexually transmissible diseases per se, as well as the logistics necessary for such a large-scale program. What problems, for example, might an already busy staff encounter in administering and delivering services to the new community population in addition to university students? How might a program be designed to minimize the increased burden to staff while simultaneously insuring comfortable, effective, and efficient services to clients?

The planning team also met with members of the community. Several groups raised questions about confidentiality and the potential identification of nonstudents as VD patients. Others thought that community members might stereotype the UHS as a student facility and not feel comfortable in seeking treatment there. Further, clinic hours might be a barrier for employed persons. Additionally, members of the gay community voiced strong concerns about anticipated judgmentalism and their ability to obtain both oral and anal cultures without identifying their "gayness."

Using the feedback and suggestions from UHS staff, potential clients, and members of the community, the core planning group developed a detailed, although tentative, program plan. In addition to delineating roles and responsibilities of various categories of UHS staff, the plan included a detailed flow chart for following patients from their initial visit to their final visit to the clinic. Procedures were developed to insure the privacy of patients, to minimize the conspicuousness of nonstudents, and to allow patients to write rather than state aloud the reasons for their visits, so that other patients could not overhear them. The group also identified optimal points for health education of clients, as well as areas in which continuing education for UHS staff would be essential.

The health educators reviewed VD education materials, available from the county health department, for their potential use in patient education. One booklet, revised to include information on the new VD clinic program, described symptoms of syphilis and gonorrhea, offered suggestions for prevention of VD, and stressed the importance of insuring the treatment of one's sexual partner or partners. The booklet was brief, readable, and enclosed in a separate blank cover so that its readers in the waiting room would not be identified as VD patients. Other materials dealing in greater detail with specific aspects of sexually transmissible diseases were also selected to be made available to patients who wished to read further on this subject.

Training Program for Clinic Staff

A second meeting of the core planning team with UHS staff representatives resulted in a refinement of the design for the VD program and an inservice training and orientation program for the clinic staff. The core planning group contended that a smoothly run program necessarily entailed the knowledge and cooperation of all persons, including support personnel, who would be either directly or indirectly involved. Therefore, all staff who had anything to do with the VD program

were included in the training and orientation program. Three educational sessions were conducted during a 2-week period. Each session was relevant to the needs and job responsibilities of specific health service staff —physicians and laboratory personnel, nurses, and clerical and other support staff (for example, medical records and business staff). Yet, each session was general enough to provide all staff members with an overall picture of the VD program. The UHS clinic staff consisted of 15 full-time and 12 part-time physicians, 24 nurses, 2 nurse practitioners, 1 physician's assistant, 9 laboratory workers, and 90 support staff members. Additionally, there were between 20 and 30 temporary and volunteer workers.

All staff members were given packets of reference materials, which included general information on the diagnosis, treatment, and counseling of patients with sexually transmissible diseases and specific information about the new clinic—copies of the program contract, all relevant forms, and patient education materials. All members also received a copy of the program flow chart, and it was discussed in detail. Throughout the training program, it was stressed that staff members' continuous input on unanticipated developments and suggestions for change would be welcomed when the program was underway.

A major theme of the training program was the need to reduce the stigma associated with venereal disease. Patients' fears of embarrassment or disparagement when seeking treatment had been continually expressed to the planning group by members of the potential client population. Also, as mentioned earlier, members of the large homosexual community were concerned about being singled out as "gay" and hence being placed in the position of double jeopardy with respect to potentially judgmental attitudes of the clinic staff. It was therefore necessary in the VD program to project the attitude that all human contact carries the risk of disease transmission, and sexual contact—heterosexual or homosexual—is no exception. Unfortunately, society's attitude toward sexuality and venereal disease has made it difficult for persons to receive prompt and nonjudgmental diagnosis and treatment and for infected persons to tell their sexual partners about their common infection. These problems often result in reinfection and further unnecessary transmission of disease.

In discussions of counseling issues during the training program, it was stressed that all patients should be made to feel free to visit or call the clinic for any concerns about venereal disease. This point was not intended to project a casual attitude toward VD; rather, it was important to communicate that VD is a reality associated with sexual activity.

With respect to the concerns of homosexuals about obtaining oral and anal cultures, it was stressed that gonorrhea of the pharynx and rectum are not exclusive problems of homosexuals. Anal and oral-genital sex are commonly practiced among heterosexuals also, and such practices seem to be becoming increasingly prevalent. Therefore, physicians and nurses should inform all patients of the possibility of contracting gonorrhea of the pharynx and rectum and provide an atmosphere that is conducive to discussing with clients whether an anal or oral culture, or both, should be taken.

A significant portion of the training program was focused on helping staff members feel more comfortable in handling problems related to sexually transmissible diseases; an important component of this involved respect for the varying values of the staff as well as patients. Thus, those who did not wish to work with VD patients withdrew, with impunity, from the VD program; fortunately, only a few did so and the overall operation of the program was not significantly affected.

The results of an evaluation of the training sessions suggested that the participants especially appreciated being informed about the overall program design; they believed that this encouraged a sense of unity among staff members. For example, receptionists—often forgotten in training programs—noted that they could better direct patients to the proper place because they now understood the entire program.

In view of the scope and breadth of the areas of sexuality, interpersonal skill development, and thorough VD control, the initial training sessions admittedly were limited. Therefore, followup sessions for physicians and nurses were planned for the coming year. Selected nurses, for example, participated in a week-long inservice training program devoted to human sexuality and interpersonal relations, and two weekly, physician-continuing-education conferences also focused on these subjects. Also, the UHS participated in, and cosponsored with the University of Michigan Medical Center, a day-long conference on the "Diagnosis and Management of Sexually Transmitted Disease."

After the training program, the planning group publicized at the university and in the community the existence and clinic hours of the new VD program, using posters, newspaper advertisements and columns, telephone contacts, and a 24-hour VD hotline operating through the UHS director's office. These efforts were aimed at reducing the stigma associated with VD.

Results

After the UHS-Washtenaw County VD program's first full year of operation, the objectives of the VD services contract were being accomplished beyond initial expectations. The clinic was used extensively by the public;

3,000 patient visits were reported in 1977 as opposed to 2,000 in 1975, and more than half of these visits were made by persons not affiliated with the university. Attendance at emergency rooms for diagnosis and treatment of VD, of special concern to the Washtenaw County Health Department, showed a dramatic reversal. Of the county's total gonorrhea caseload in 1977, 52.9 percent of the patients were seen at county-funded VD clinics, whereas the emergency rooms' share dropped to 11.9 percent. The percentages of the total gonorrhea caseload reported by health care providers are shown in the preceding text table.

The county's total reimbursement bill for VD services dropped from $35,055 in 1975 to $31,059 in 1977, a saving of $4,000 (11 percent), and the average cost to the county per patient visit dropped from $10.02 to $8.98. Patient visits in 1975 totaled 3,498, and in 1977 they totaled 3,456. In 1977, the average cost to the county for the 3,000 patient visits at the UHS was $7.88 per visit; in 1975, it was $7.06 for the 2,000 visits—an insignificant increase in view of the prevailing rates for outpatient services elsewhere in the community. The county and the UHS renewed their contract for 1978 with no increase in price.

Revenue from the county reimbursement fund resulting from the contract rose from $14,000 in 1975 to $24,000 in 1977. Simultaneously, the UHS was able to decrease the administrative costs of the program because considerably less clerical time was needed for individual documentation of service and billings to the county. Monies saved could be funneled into educational and counseling services for the VD program. The increased patient load resulting from the program—about 20 extra patient visits a week (1,000 a year)—was not difficult for the UHS medical and nursing staffs, and additional staff was not required. Finally, the VD services contract also helped to foster good public relations for the university and the UHS. A valuable service was being provided at a time when the university was under pressure to be more responsive to community needs.

Perhaps the most unexpected outcome, which may be at least partially attributed to the new VD program, was the dramatic decline in gonorrhea morbidity in Washtenaw County. During the first full year that the contract was in effect, the county's annual gonorrhea caseload dropped 21.1 percent, from 1,543 diagnosed cases in 1976 to 1,217 in 1977 (*8*). There are strong indications that at least some of the decline may be attributed to the new VD program. Two alternative explanations, however, are plausible: (*a*) the decline may be due to a local failure to report cases or to cases missed and (*b*) the decline may be due to an increased sexual conservatism rather than to the effects of a given program offering clinical services and education.

With respect to the first alternative explanation, no significant changes occurred in the county's gonorrhea screening program or laboratory monitoring program during this period. The male to female ratio of cases reported remained at nearly 1 to 1, as it has been since 1973 when a record low of 0.75 to 1 was achieved. Before the gonorrhea control project was started in 1972, the county male to female case ratio was 2.68 to 1. Another factor arguing against the existence of an untreated, unreported reservoir of infection is the 53 percent decline in the number of females treated for gonorrhea at hospital emergency rooms in the county between 1975 and 1977, as shown in the following table.

Females treated for gonorrhea	*1975*	*1977*	*Percent change*
Treated at emergency rooms	219	102	−53.0
Total treated caseload	938	589	−37.0
Percent of total caseload treated at emergency rooms	23.0	17.0	

Because women are usually unaware of their gonococcal infection until they experience the onset of lower abdominal pain, we can assume that those seeking treatment at emergency rooms probably have pelvic inflammatory disease. Whereas men with VD symptoms could be referred elsewhere, the emergency room would be obliged to evaluate women with lower abdominal pain to determine if they have serious conditions other than gonorrhea. Thus, if there were still a large untreated reservoir of infection in the community, the number of women with gonococcal pelvic inflammatory disease would remain high, and these women would most likely be seen at area emergency rooms. This did not seem to be the case in Washtenaw County in 1977.

The second possible explanation is that the decline in gonorrhea morbidity is real, but due to increased sexual conservatism. However, to compare county morbidity with national and State trends (*9*) over the same timespan, one would have to argue—in order to explain the disproportionate decline in Washtenaw County—that the increase in sexual conservatism was greater in the county than on the national or State levels, as suggested by the following figures.

Gonorrhea morbidity	*United States*	*Michigan*	*Washtenaw County*
1976	1,001,994	34,836	1,543
1977	1,000,177	36,883	1,217
Percent change	−0.18	+5.88	−21.13

There is no evidence that Washtenaw County, with its high concentration of relatively transient, single persons under age 30, is experiencing such an increase in sexual conservatism. Illegitimate births, for example, which might provide some index of sexual conservatism

among single persons, increased steadily in the county during the 1970s, from 7.5 percent of the total live births in 1970 to 11.4 percent in 1976. The leveling off of the county's 1977 illegitimacy rate at 11.4 percent (*10*) would hardly justify an interpretation of increased sexual conservatism, nor is this leveling consistent with the more dramatic decrease in the county's gonorrhea morbidity over this timespan.

Perhaps the strongest factor arguing for the success of the new VD program and its contribution to the declining incidence of gonorrhea in Washtenaw County is the response to the program from the community which the UHS clinic was intended to serve. All clients receiving VD services were given an evaluation form which asked for their anonymous, written comments on staff attitudes, waiting time, clinic procedures, and quality of the educational materials they received. Additional space was provided for general remarks and suggestions. The clients were asked to deposit their completed forms in a special receptacle near the exit.

The evaluations were overwhelmingly positive. Repeatedly singled out for praise were the professional, nonjudgmental attitudes of the UHS staff, the clinic's convenient hours and short waiting times, the confidentiality of diagnosis and treatment, and the thoroughness of the VD education and counseling offered at the clinic. Also, many clients volunteered that they would not hesitate to refer their friends or partners to the UHS for a VD examination, and that they could not have imagined themselves being more satisfied with a clinic experience. Indeed, several patients found the clinic experience so positive and reinforcing that they signed the evaluation forms.

Discussion

We believe that planning the VD services at the UHS to anticipate the needs and anxieties of clients, with careful attention to the concerns of health care providers, was a major factor in the community's acceptance and use of the VD clinic. This planning may well be the largest single factor in accounting for the sudden drop in gonorrhea morbidity in the county. Much time and effort was devoted to each step preceding implementation of the program, a procedure that planners often forget. Briefly, the steps were as follows.

—Eliciting concerns of potential clients and staff,
—Seeking suggestions and help from staff with respect to content and logistics,
—Developing a tentative plan subject to review by the staff,
—Careful review and preparation of relevant materials,
—An orientation and training program for all staff,
—Planning for followup,
—Wide publicity,
—Encouraging continuous feedback from providers and consumers.

A review of more than 500 evaluations by patients revealed an overwhelmingly favorable response and a remarkable consistency in reporting that initial feelings of fear and embarrassment were dispelled when attending the clinic. Recurrent themes of the comments were the friendly, nonjudgmental, and helpful attitudes of the staff, the smooth flow from entry to followup, convenient clinic hours, and appreciation for the educational materials received.

Because of their positive clinic experience, infected clients were likely to bring their sexual partners in for treatment, thereby limiting the spread of infection. Even when infected clients failed to alert their partners, their initial clinic experience appeared to encourage them to return to the clinic promptly if their infections recurred. Thus, even if reinfection occurred, the length of time that the client was a disease transmitter was reduced.

Other than having every infected person interviewed by a health department epidemiologist, the Washtenaw County-UHS experience suggests that one solution to reducing the high incidence of gonorrhea may be carefully planned positive experiences for clinic clients.

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