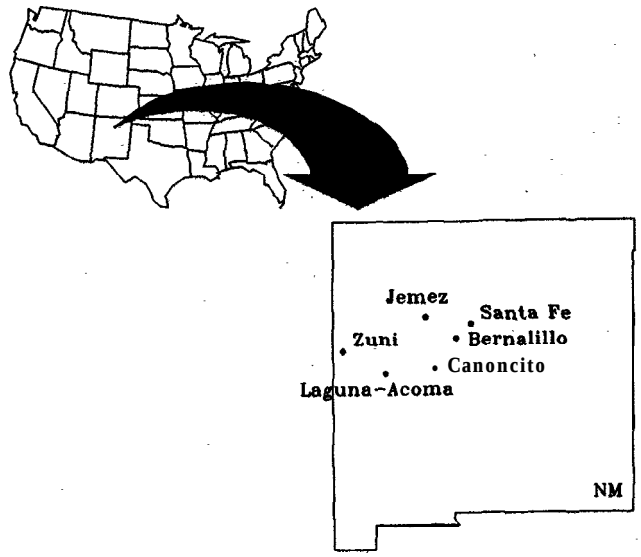
4954

FINAL REPORT

Evaluation of the Albuquerque Area Teen Centers

Contract No. 282-90-0037



Submitted by:

Office of Planning, Evaluation, and Legislation
Indian Health Service
Department of Health and Human Services

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EXECUTIVE SUMMARY

Evaluation of the Albuquerque Area Teen Centers

Contract No. 282-90-0037

Submitted to:

Office of Policy, Evaluation, and Legislation
Indian Health Service
Department of Health and Human Services

Submitted by:

Support Services, Inc.
8609 Second Avenue
Suite 506
Silver Spring, MD 20910-3362

June 1991

EXECUTIVE SUMMARY

1.0 INTRODUCTION

The objectives of this study were to 1) conduct an evaluation of the efficiency and effectiveness of the Albuquerque Area Teen Centers (TCs), and 2) develop a programming model to serve as a guide for policy regarding establishing additional TCs, and to establish a planned approach for promoting adolescent health and for preventing behaviors that put Indian youth "at risk."

A. Statement of the Problem

Teen Centers were first developed in the Albuquerque Area in 1983, and they have been in operation since that date. These TCs reflect both concern about the deteriorating health of adolescents among the Indian Health Service (IHS) clients, and increasing emphasis on health promotion and disease prevention activities by the IHS. This is the first formal evaluation of the TCs.

B. Background

The Albuquerque Area TCs were, developed in response to a crisis in Indian adolescent health. The crisis in adolescent health is more severe and probably developed earlier in "Indian Country" than in other parts of the United States.

1. Crisis in Adolescent Health. In recent years there has been an increasing awareness that the health status of adolescents in the United States has been deteriorating, and that it has reached crisis proportions (37). For example, over the 20 year period, 19651985:

- There was a 300 percent increase in the prevalence of the sexually transmitted diseases (STDs) gonorrhea and syphilis among adolescents; this increase was from 4 cases per thousand to 12 cases per thousand adolescents (21).

- The percentage of children under 18 living in single parent homes doubled from 10 percent to 21 percent (23).

- The rate of single teenaged mothers (15-19 years old) jumped from 17 per thousand to 23 per thousand. Similarly, the percentage of sexually active girls under 16 years old quadrupled from 3 percent to 13 percent (22).

Each year over 1 million adolescent girls become pregnant, approximately one teenage girl out of ten. This rate is twice that of any other industrialized country. In the 35 years between 1950-1985, the rate at which 14 to 17 year olds were arrested increased by a factor of 30, from 4 per thousand to 118 per thousand. Thirty-nine percent of high school seniors stated that they had gotten drunk within the previous 2 weeks (37).

2. **Indian Adolescents.** In general, minority adolescents have lower health status than white adolescents, and American Indians have especially severe health problems. Indian youth aged 5-14 have a 30 percent higher death rate than that of all races in the United States (25).

The relatively high death rates for Indian youth are compounded by the youthful character of the Indian population; 23 percent of the Indian population is in the 10-19 age group compared to 17 percent of the total population (25).

3. **Response to the Crisis in Adolescent Health. As** the crisis in adolescent health became apparent, many recommendations and a few programs have been developed. Examples of such recommendations and programs include:

- 1970—First school-based health clinic (SBC) was established in Dallas, Texas

- 1980—The Center for Population Options (CPO), a nonprofit educational institution focusing on adolescent health, was founded

- 1980—The Journal of Adolescent Health Care was founded by the Society for Adolescent Medicine

- 1983—First IHS-funded Teen Center was founded in the Albuquerque Area

- 1986The Carnegie Council on Adolescent Development was established by the Carnegie Corporation of New York. In 1989, the Council published ***Turning Points,*** a volume that called for radical "transformation of middle grade schools" and for "health care professionals to join with schools to ensure students' access to needed services..."

- **1991—The** Office of Technology Assessment (OTA) published the first 2 volumes of a 3 volume study on adolescent health.

C. Prior Research

1. CPO Study. In 1984, the Center for Population Options (CPO) began a study of a sample of 92 **SBCs** (28). Of this sample, the CPO study performed an **indepth** evaluation of the effectiveness of six **SBCs.** Effectiveness was measured in terms of 1) utilization, 2) services provided, 3) impact on utilization of medical care, and 4) impact on risk-taking and pregnancy prevention.

2. Zuni Study. In 1986, Craig and Schwend conducted a study that focused on user satisfaction with the Zuni TC (11). A questionnaire was completed by 236 adolescents aged 13-20 years in the Zuni public school system. Almost all (96%) of the students were aware of the TC, and 42 percent had used it. Of the students who had used the TC, 79 percent said they would use it again.

3. **TCs** Administered by UNM. In 1989, Davis, Hunt and Kitzes described the model that evolved in developing four (Acoma-Laguna, Bernalillo, Canoncito, and Jemez) of the six **TCs** included in this evaluation (12). This TC model (the University of New Mexico model) calls for comprehensive, free services determined by the needs perceived by adults and teens in the community served. These TC services are to be provided by a multidisciplinary staff able to establish rapport with teens but who are outside the teen's community (i.e., without longstanding relationships with the teens and their families). Because the TC provider and staff are "outsiders", it was thought that the teens would be better able to discuss personal problems and concerns with less fear of violations of their privacy and confidentiality.

4. Sherman Indian School Study. In 1983 the IHS Phoenix Area funded a teen pregnancy prevention program at the Sherman Indian High School in Riverside, California (49). **"Sherman"** is a BIA boarding school that enrolls about 500 students aged 14-21 years. The students are members of many different tribes. The teen program was administered by a nurse practitioner, and emphasized confidentiality, accessibility, a non-judgmental approach, coordination with other workers on campus, and marketing to induce students to participate in the program.

The pregnancy prevention program continued for six years (1983-1989) until it was canceled as part of a funding cutback. While the program was active, pregnancy rates at the school decreased from 10.9 to 6.9; after termination of the program the pregnancy rate returned

to the pre-program levels. The results also showed an increase in contraceptive use while the program was functioning. No impact was found on high school completion rates.

5. IHS Evaluability Assessment (EA). In 1988, in response to a request by the Albuquerque Area IHS for a formal evaluation of the TCs, an IHS team was formed to conduct an EA of the centers. The purpose of the EA was to determine whether the TC programs were adequately defined, developed, and structured for a formal evaluation to provide useful information.

The EA team made site visits, reviewed existing reports and literature, and conducted personal interviews to gain a perspective of the management and operation of the TCs at Acoma-Laguna, Bernalillo, Canoncito, Jemez, Santa Fe, and Zuni. An additional site visit was made to the Espanola TC, a school-based program. The EA concluded that the program was sufficiently well-developed to justify a formal evaluation.

D. Strengths/Limitations of the Study

The primary strengths of the study are that it was conducted by an independent contractor without a vested interest in the outcomes, and that available data often spanned 7 years. Consequently, the TCs have been in operation long enough to provide enough information indicating how they are performing. Furthermore, two of the six TCs were no longer operational, and provided insights associated with the closing of TCs.

After the evaluation had begun, the IHS determined that the collection of interview data would be subject to Office of Management and Budget (OMB) review and approval, and that it was impractical to secure such approval given the time available. Consequently, the study was unable to include interviews of three important groups: 1) student TC users and non-users; 2) parents of either group; and 3) community leaders. Consequently, many aspects of the TCs could not be evaluated.

Assessment of TC effects on such characteristics as teen sexuality, health status, substance abuse, and nutrition are mostly anecdotal. For example, the registered nurse at the Santa Fe TC was credited with succeeding in convincing a young female client to quit smoking. But how many other youngsters were convinced is unknown. Similarly, measures of the impact of the TCs on community attitudes and commitment to improve adolescent health are largely hearsay. Thus, the evaluation could not collect important data on TC efficiency, effects, and effectiveness as initially planned. Accordingly, the evaluation does not and cannot achieve all of its original objectives. Finally, the contractor for four TCs (Acoma-

Laguna, Bernalillo, Canoncito, and Jemez), the University of New Mexico (UNM), refused the evaluation team access to encounter forms and other personally-identifiable data.

2.0 METHODOLOGY

A. Design

The study was a qualitative evaluation (10). The approach employed was similar to a case study utilizing repeated, unstructured, indepth interviews with TC and IHS staff, and reviews of available data including monthly, quarterly, annual, and special reports. All study data were reviewed with the objective of addressing, to the degree possible, the 15 questions in the Statement of Work for the evaluation.

B. Data Collection

Unstructured personal interviews were conducted, both on-site and by telephone, with IHS and contractor staff who were working or had worked with TC programs.

3.0 CONCLUSIONS AND RECOMMENDATIONS

1. **The IHS should continue to fund Teen Centers (TCs) in the Albuquerque Area.**

There is a clear need for the services provided by the TCs, the existing programs are viable, and the services are being used. The average cost of operation of a TC is $48,196 per year or $38,141 per year depending on the contractor. A TC probably costs less to operate for one year than the costs associated with the treatment of one teenager who contracts AIDS.

2. **The IHS should fund TCs in other Areas, but only on an experimental basis as demonstration projects.**

These demonstration TC programs should incorporate sound evaluation methods and should utilize the model developed in this evaluation so that the impact and cost-efficiency of the TC model can be better established.

3. **Examination of six years of TC operation revealed that IHS and the TC contractors are performing at a satisfactory level. The** following activities and approaches should be replicated in new **TCs.**

- Support from hieh levels in the Area Office. The TCs benefitted from the interest and support of the IHS Area Director, Chief Medical Officer, and the Maternal and Child Health (MCH) Division. Without the commitment and leadership provided by these Area Office administrators, the TCs would not have developed. Critical commitments and decisions made by Area Office administrators include 1) insuring that the TC procurement process was successful, from development of the request for proposed to actual contract award, 2) allocating scarce funding and other resources for a new, unbudgeted program, and 3) assigning scarce health care professionals as Project Officers to monitor the performance of the TC contractors.

- Contract out the operation of TCs to tribes or community-based organizations. This facilitates community "ownership" of and involvement in the programs, and is consistent with the IHS goal of Indian self-determination.

- Team with other funding sources. In some situations, states, counties, cities, and other funding sources can help defray TC costs. Matching state funding was obtained for the Bemalillo TC. Similar matching funds should be solicited wherever possible.

- Expand on the model provided in this study by creating a TC developers handbook. The handbook should include step-by-step checklists of activities required to plan, start, and keep a TC going. Also the handbook should contain example of such items as measurable objectives, job descriptions, timesheets, staff performance evaluation forms, standardized reporting forms and procedures, and flow charts illustrating the steps to be completed for common activities. In summary, the handbook should contain practical guidance and examples so that each community that decides to develop a TC is not forced to "reinvent the wheel."

- Procure TC services bv three year contracts. This will help TCs to recruit and retain quality staff, and will facilitate planning. TC contracts generally have a one year period of performance. TC managers almost universally cited the

uncertainty of year-to-year funding as the source of frustration and as a barrier to efficient planning and management.

4. **The following changes in TC programming should be instituted:**

- Make contract awards only to offerors who submit technically acceptable proposals and who provide evidence of successful operation. Communities that fail to prepare satisfactory proposals probably cannot successfully develop and manage a TC. As indicated below, the proposal should include the results of a formal needs assessment or should include plans to conduct such an assessment. Also, the Request for Proposal should require that the proposal specify how the offeror plans to accomplish each of the tasks in the Statement of Work.

- Reauire that TC proposals include measurable objectives. This requirement will help TC contractors plan and evaluate their own performance and the impact of the TC on teen health. The actual objectives and the contractor's success in achieving these objectives will help justify which TCs should be funded.

- Develon standard reporting forms. All TCs should use the same reporting definitions and procedures; such procedures will greatly facilitate evaluation of each TC's performance. The problem of collecting and analyzing data to document TC operations has been confronted by more than 100 SBCs that have been in operation over the last 20 years. The IHS should purchase and/or adapt an automated reporting system for its TCs, from one of the available automated SBC information systems.

- Develop a standard evaluation form and procedures to guide IHS Project Officers'. A standard evaluation form and procedures can guide the TC's internal quality assurance program. Include in the standard evaluation an administrative review of the TC contractor such as use of signed timesheets, position descriptions, and employee performance reviews.

- Provide technical assistance for the evaluation of TC impact. Most TC contractors will probably lack the technical expertise required for evaluation of the TCs, and will have a strong bias toward positive findings. Technical

assistance should be provided at the initial TC planning stages so that appropriate baseline and comparison data can be collected.

Specification of data related to program evaluation should be done in conjunction with the implementation of a standardized, automated reporting system recommended above. The data to be collected should include the amount of alcohol consumption, age at which sexual activity is initiated, contraceptive use by sexually active teens, and pregnancy rate.

- Determine the return on investment. Sound data on program impact (e.g., number of pregnancies prevented, STDs prevented, decrease in substance abuse) can be compared to the amount awarded to make the determination.

5. Problems to be solved and barriers to overcome.

- Prepare for negative publicity and onposition before it happens. TCs deal with controversial and emotionally charged issues such as teen sexual behavior and pregnancy. If TC funding is continued or expanded, IHS should have a "disaster recovery" plan that deals with many levels of institutions including the executive branch (i.e., OMB, BIA, DHHS, PHS), Congress, tribal leaders, school officials, parents and teens. Because of the controversial nature of the issues, it is impractical to get "everyone" to sign off, but the key to success involves presentation of the facts of the crisis in adolescent health and the TC model so that key supporters are not surprised should heated controversy occur.

6. TC funding has been variable, uncertain, and unequal.

- The funding for the first few years of TC operation (1983-1985) is unclear. Apparently, the TCs were financed through purchase orders and IHS Contract Health Service (CHS) purchases. While the Acoma-Laguna TC was established in 1983, the first recorded contract was with the UNM for the operation of the Bernalillo TC in 1985.

  Funding for the TCs has fluctuated greatly over time. For example, the contract for the Bernalillo TC increased substantially in 1989 and, in 1990, was reduced by more than 50 percent. The Zuni TC has experienced less variation in funding; the contract award increased 30 percent in 1987, and decreased 7 percent the following year.

The largest contract in any one year was for $173,934 awarded to UNM in 1989 for operating four TCs (Acoma-Laguna, Canoncito, Bernalillo, and Jemez). The smallest contract was in the amount of $25,000 to the UNM in 1985 for operation of the Jemez TC. From 1985-1990, the total amount of TC contract awards was slightly under $1 million ($989,930). Since the contract award data are incomplete, it is likely that the actual funding exceeds $1 million.

The four TCs operated under contract to UNM have received disproportionate amounts of funding. The funding for the Acoma-Laguna, Canoncito, Bernalillo, and Jemez TCs totals $722,945. The total funding for the two TCs not operated by UNM (Santa Fe and Zuni) is $266,985. When these figures are normalized by computing the average cost per TC per year, 1985-1990, the UNM average cost ($48,196) is significantly higher than the average of the other TCs ($38,141). The explanation for these differences are not clear, but appears not to be a function of the number of visits (see section on cost-efficiency below).

7. **TCs have been cost-efficient; however, they perform at different levels of efficiency.**

- The cost per TC visit was computed as a measure of cost-efficiency. This measure was computed by dividing the amount of contract award by the total number of visits or encounters reported in TC documents. There is large variation in the cost per visit both between TCs and within most TCs over time. The cost per visit ranges from a low of $16.82 at Zuni in 1986 to a high of $124.43 in Jemez. The average cost per visit for the TCs operated under contract to UNM was $51.57; the average for the other TCs was $39.74. The differences give rise to questions of equity in funding across TCs, and the quality and quantity of services provided by the TCs. It appears that the Zuni and Santa Fe TCs have been able to produce significantly more encounters per dollar than the other TCs. The rationale for the variation is unclear. This evaluation did not focus on TC cost-efficiency, and there are so many differences across TCs that it is impossible to clearly identify specific factors associated with variations in costs.

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I. INTRODUCTION

The objectives of this study were to 1) conduct an evaluation of the efficiency and effectiveness of the Albuquerque Area Teen Centers (TCs), and 2) develop a programming model to serve as a guide for policy regarding establishing additional TCs, and to establish a planned approach for promoting adolescent health and for preventing behaviors that put Indian youth "at risk."[1]

1.0 Statement of the Problem

Teen Centers were first developed in the Albuquerque Area in 1983, and they have been in operation since that date. These TCs reflect both concern about the deteriorating health of adolescents among the Indian Health Service (IHS) clients, and increasing emphasis on health promotion and disease prevention activities by the IHS. This is the first formal evaluation of the TCs.

2.0 Background

The Albuquerque Area TCs were developed in response to a crisis in Indian adolescent health. The crisis in adolescent health is more severe and probably developed earlier in "Indian Country"[2] than in other parts of the United States. Throughout this section, the health problems of Indian adolescents are discussed in the context of the overall problem of adolescent health in the United States.

2.1 Definition of Adolescence? Definitions of adolescence vary, but most include the following three basic components:

- Adolescence is a period or stage of development. Examples of such stages include infancy, childhood, adolescence, young adulthood, middle age, and old age. Adolescence is frequently defined as a period of transition between childhood and adulthood

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[1]Throughout this report "Indian" is used to refer to American Indians in the continental United States, and to Indians, Aleuts, and Eskimos in Alaska.

[2]"Indian Country" in this report refers to the 33 "reservation states" served by the IHS: AL, AK, AZ, CA, CO, CT, FL, ID, IA, KS, LA, ME, MA, MI, MN, MS, MT, NE, NV, NM, NY, NC, ND, OK, OR, PA, RI, SD, TX, UT, WA, WI, WY.

[3]A good review of definitional issues related to adolescence appears in *Adolescent Health* (see reference 50).

- Adolescence includes the ages 10 through 18 years

- Adolescence includes puberty-a period of rapid physical growth and increased secretion of sex hormones with the associated emergence of secondary sex characteristics (e.g., pubic, axillary and facial hair, breast development) (55).

2.2 Definition of Adolescent Health. Definitions of adolescent health vary but generally include traditional definitions of health in terms of the presence or absence of physical disease and disability plus such factors as:

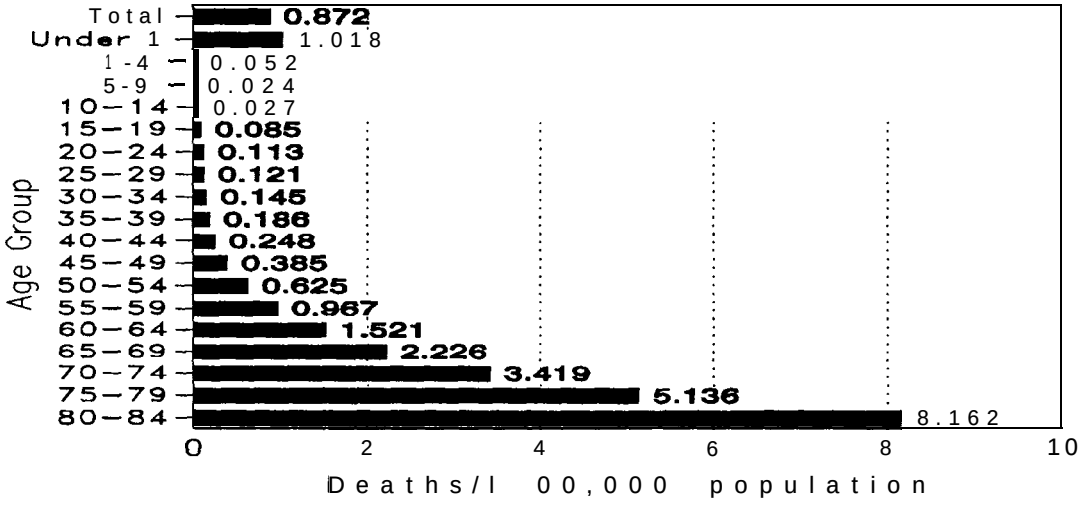
- Adolescent problem behaviors (e.g., delinquency and substance abuse)

- Positive components of health (e.g., social competence, physical fitness)

- Mental health, social adjustment, and a sense of well-being.

Defining adolescent health is difficult because traditional or narrow definitions which focus on the incidence and prevalence of morbidity and mortality fail to adequately describe the health problems of adolescents. For example, based on mortality rates, adolescents are among the healthiest Americans (see Figure 1). On the other hand, in ***Code Blue: Uniting for Healthier Youth,*** the National Commission on the Role of the School and the Community in Improving Adolescent Health has concluded that "the emergency we are facing is an unprecedented adolescent health crisis" (38).

Figure 1. Overall Death Rates among the U.S. Population by Five-Year Age Groups, 1987



NOTE: U.S. Department of Health and Human Service, Centers for Disease Control, Notional Center for Health Statistics, unpublished mortolity data, Hyottsville, MD. 1990.

2.3 Crisis in Adolescent Health. In recent years there has been an increasing awareness that the health status of adolescents in the United States has been deteriorating, and that it has reached crisis proportions (37). For example, over the 20 year period, 1965-1985:

- There was a 300 percent increase in the prevalence of the sexually transmitted diseases (STDs) gonorrhea and syphilis among adolescents; this increase was from 4 cases per thousand to 12 cases per thousand adolescents (21).

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Each year over 1 million adolescent girls become pregnant, approximately one teenage girl out of ten. This rate is twice that of any other industrialized country. In the 35 years between 1950-1985, the rate at which 14 to 17 year olds were arrested increased by a factor of 30, from 4 per thousand to 118 per thousand. Thirty-nine percent of high school seniors stated that they had gotten drunk within the previous 2 weeks (38).

Sexually transmitted diseases (STDs) affect almost 12 million American people each year, 86 percent of whom are aged 15-29. About one-fifth of all young people, by the time they reach 21, have needed treatment for a STD. Because only some teenagers are sexually active, this amounts to an effective rate of at least 25 percent among young people. Gonorrhea is the most frequently reported communicable disease in the U.S. Youth, low income, and minority populations are at particular risk. In 1989, adolescents aged 15-19 had an infection rate of 1,125 per 100,000 (55).

It is estimated that 78 percent of adolescent girls and 86 percent of adolescent boys have engaged in sexual intercourse by age 20. The risks associated with adolescent sexual activity include teen pregnancy, and infection by STDs. Of the approximately 1.1 million girls aged 15-19 who become pregnant each year, an estimated 84 percent do not intend pregnancies. Many of these teenagers face serious health and psychosocial risks. Teenage mothers are more likely than others not to finish school, to be unemployed, to have low-birth weight babies, and to lack parental skills (58).

Many health-related risks for chronic disease develop during adolescence, such as smoking, alcohol and other types of drug abuse, and lifestyles contributing to violence.

> **"Alcohol is a major contributor to both motor vehicle crashes and violence, two of the leading causes of death and disability among young people. Unintentional injuries account for about half of all deaths among people aged 15 through 24; three-quarters of these deaths involve motor vehicles. More than half of all fatal motor vehicle crashes among people in this age group involve alcohol. As with motor vehicle accidents, about half of all homicides are associated with alcohol use" (58).**

2.4 **Indian Adolescents.** In general, minority adolescents have lower health status than white adolescents, and American Indians have especially severe health problems. Indian youth aged 5-14 have a 30 percent higher death rate than that of all races in the United States (see Table 1).

Table 1. Age-Specific Mortality Rates

Indian & Alaska Natives			U.S. Rate	Ratio Indian to U.S. All Races
Age Group	Number	Rate	All Races	
Under 1	1,215	1,140.0	1,032.1	1.1
1-4	328	87.9	52.0	1.7
5-14	325	33.8	26.0	1.3
15-24	1,577	157.3	102.3	1.5
25-34	1,790	249.7	132.1	1.9
35-44	1,749	370.8	212.9	1.7
45-54	2,199	849.5	504.8	1.3
55-64	2,933	1,225.6	1,225.1	1.0
85-74	3,821	2399.1	2,801.4	0.9
75-84	3,357	5,182.6	6,348.2	0.8
85+	2,023	11,022.1	15,398.9	0.7

SOURCE: U.S. Data by Race: National Center for Health Statistics, HHS, Monthly Vital Statistics Report, Vol. 35, No. 6, Supplement (2) Advance Report-Final Mortality Statistics, 1984, and unpublished data from NCHS.

Table 2 shows the ten leading causes of death for Indian youth and those of all races. Those causes contributing to disproportionally high death rates for Indian youth include accidents (70 percent higher), suicide (50 percent higher), homicide (40 percent higher), chronic liver disease and cirrhosis (400 percent higher), and pregnancy and childbirth (300 percent higher).

Table 2. Ten Leading Causes of Death for Decedents 15 to 24 Years of Age

Cause of Death	Indian & Alaska Native		U.S. All Races	Ratio Indian to U.S. All Races
	Number	Rate	Rate	
All Causes	1,577	157.5	102.3	1.5
Accidents	887	88.6	51.2	1.7
Motor vehicle	614	61.3	39.0	1.6
Other accidents	273	27.3	12.2	2.2
Suicide	240	24.0	13.1	1.5
Homicide	201	20.1	14.2	1.4
Malignant neoplasms	36	3.6	5.4	0.7
Diseases of the heart	20	2.0	2.8	0.7
Cerebrovascular diseases	10	1.0	0.7	1.4
Chronic liver disease and cirrhosis	8	0.8	0.2	4.0
Congenital anomalies	7	0.7	1.3	0.5
Complications of pregnancy, childbirth & puerperium	6	0.6	0.2	3.0
Pneumonia and influenza	5	0.5	0.7	0.7
All other causes	157			
SOURCE: IHS, Trends in Indian Health, 1990.				

The relatively high death rates for Indian youth are compounded by the youthful character of the Indian population; 23 percent of the Indian population is in the 10-19 age group compared to 17 percent of the total population (see Table 3).

Table 3. Age Distributions of Indians and All Races in the United States

Age Group	Indian & Alaska Native		U.S. All Races	
	Number	Percent	Number	Percent
All Ages	1,303,193	100	226,504,825	100
Under 10	277,100	21	33,041,541	15
10-19	303,286	23	39,402,586	17
20 and Older	722,808	56	154,060,698	68
Median Age	22.6		30.0	
SOURCE: IHS, Trends in Indian Health, 1990.				

2.5 Response to the Crisis in Adolescent Health. As the crisis in adolescent health became apparent, many recommendations and a few programs have been developed. Examples of such recommendations and programs include:

- 1970—First school-based health clinic (SBC) was established in Dallas, Texas

- 1980—The Center for Population Options (CPO), a nonprofit educational institution focusing on adolescent health, was founded

- 1980—The Journal of Adolescent Health Care was founded by the Society for Adolescent Medicine

- 1983—First IHS-funded Teen Center was funded in the Albuquerque Area

- 1986—The Carnegie Council on Adolescent Development was established by the Carnegie Corporation of New York. In 1989, the Council published ***Turning Points,*** a volume that called for radical "transformation of middle grade schools" and for "health care professionals to join with schools to ensure students' access to needed services..."

- 1991—The Office of Technology Assessment (OTA) published the first 2 volumes of a 3 volume study on adolescent health.

***2.6* Access to Health Care. It** is estimated that 1 out of 7 adolescents is without access to health insurance, and 1 out of 3 low income adolescents is without access to Medicaid (7). Many adolescents are unaware of existing health care services, or existing services (e.g., urban public health clinics seem unapproachable). Furthermore, many facilities lack appropriate care for adolescents (55).

***2.7* Development of School-Based Clinics (SBCs).** Schools in the United States have been involved in the promotion of student health since the 1900s (29). This involvement generally was limited to the provision of first aid, screening, and assessment by school nurses. Beginning in 1970, SBCs were developed to address the needs of adolescents, with the first such clinic established in Dallas, Texas in 1970. As of 1989, there were 153 clinics operating including 11 in the state of New Mexico (30). In addition to SBCs, there are an unknown number of school-linked clinics.

2.8 Development of the IHS Supported Teen Centers in the Albuquerque Area. In 1982, concerned community members from the Acoma and Laguna Pueblos and the Canoncito Band of Navajos formed the Teen Pregnancy Task Force to address the growing teenage pregnancy rates in their respective communities. Subsequently, other people in medical and professional fields were involved and consulted, including parents, counselors, health workers, and tribal officials. The Teen Pregnancy Task Force submitted a proposal to the IHS Albuquerque Area Office to operate a TC. Because the task force was not incorporated, they were not eligible to contract with IHS for their services. The task force developed a relationship with the University of New Mexico (UNM) which submitted a proposal and was contracted in 1983 to establish and operate TCs at Acoma-Laguna and Bernalillo High Schools. Other TCs were established in the Canoncito, Jemez, Santa Fe, and Zuni communities. Four of the TCs are school-based clinics (SBCs); two TCs, Jemez and Zuni, were located in tribal facilities.

The Bernalillo High School enrolls a large number of non-Indian students. Because the Bernalillo TC is open to all students, an innovative agreement was reached by the Indian Health Service (IHS), the state of New Mexico Health and Environment Department (HED), and the University of New Mexico (UNM) to jointly fund this TC.

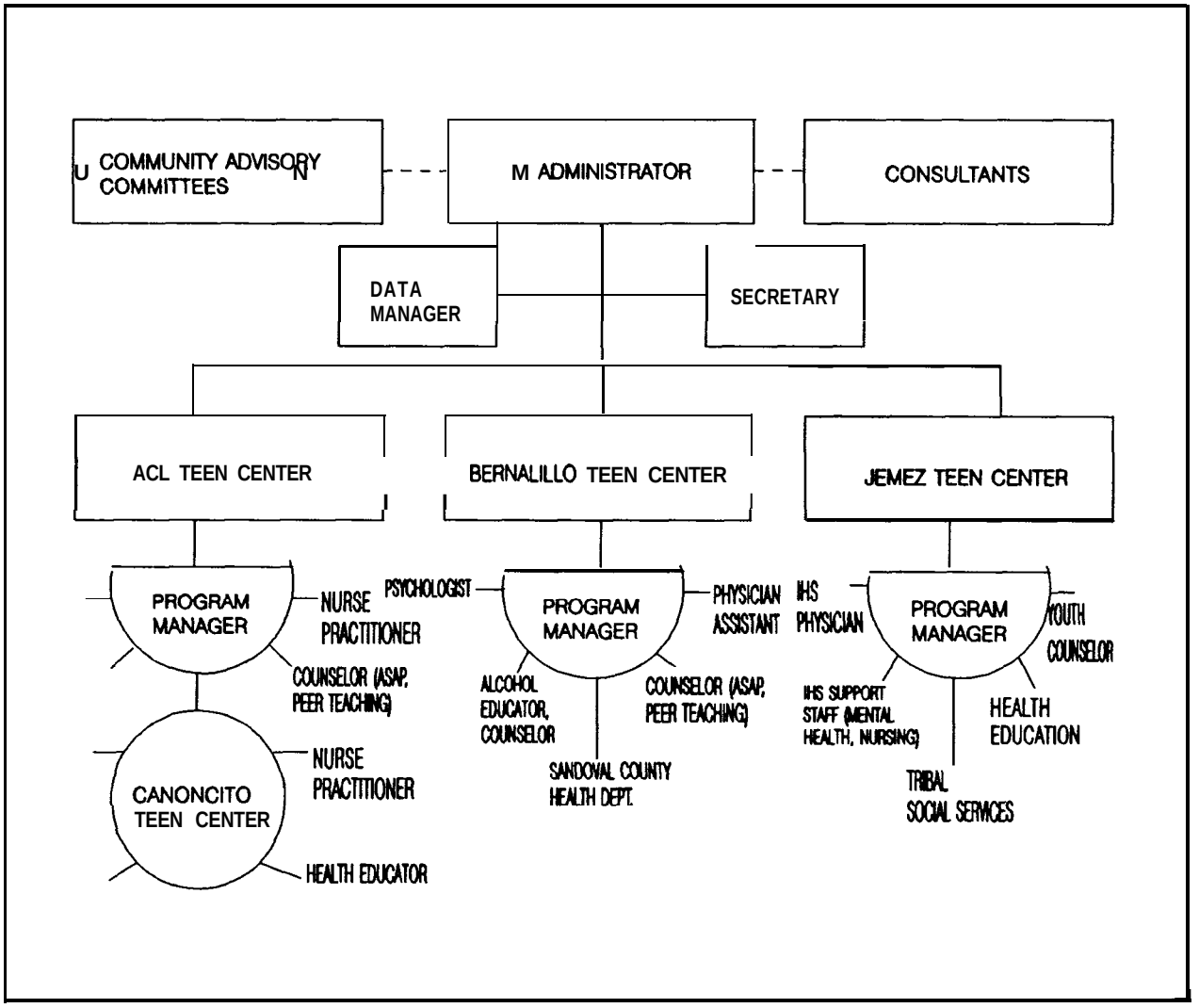
Over time, UNM's Center for Indian Youth Program Development (CIYPD) became responsible for operating four TCs: Acoma-Laguna, Bernalillo, Canoncito, and Jemez. Figure 2 illustrates the organizational structure of the UNM TC program.

The Santa Fe TC was operated by several contractors, and the Zuni TC has been operated by the Zuni Tribe under contract to IHS. The Santa Fe TC closed in 1989, and the Jemez TC closed in 1990; the other TCs remain in operation at the time of this evaluation.

2.8.1 Objectives of TC Services. Specific objectives for the TCs included:

- Provision of specialty health care and counseling needed by Indian adolescents
- Promotion of an interest in the wellness and the health of the whole-person
- Reduction of substance abuse, teen pregnancy, and suicide among Indian adolescents
- Increase in self-esteem and self-responsibility of youth in the community
- Promotion of interest in and knowledge about the specific problems of and effective methods of treatment of Indian adolescents.

Figure 2. Organization of the UNM Teen Center Program



2.8.2 Services in Place. Although not necessarily a deliberate decision, TCs were located in communities where there were no specialty teen health care programs, and where local IHS health care facilities were under-utilized by teens. Local communities participated in each TC by providing administrative services, office space, facilities, and other support. Community members served on the TC Advisory Committee.

In addition to a few, full-time staff (usually one or two), TCs relied on local (generally IHS) health care providers on a part-time basis for counseling, physical examinations, and other services. The TCs referred cases to local IHS health care facilities, and followed up on cases as needed.

2.8.3 Profile of Albuquerque Area TCs. The following section provides a brief profile of each of the six Albuquerque Area TCs.

1. Acoma-Laguna. In 1983, a TC was established at the Acoma-Laguna Junior/Senior High School, a state-operated public school. The first known contract to operate the Acoma-Laguna TC was awarded to the University of New Mexico (UNM) in 1986. Prior to this contract, the TC was apparently funded by IHS purchase orders and/or Contract Health Service (CHS) funds. The TC serves Mesita, Laguna, Sexboita, Seama, Cubero, Acoma, and Paraje; five pueblo communities and one adjoining Spanish settlement. The TC developed services based on the perceived needs identified by the Teen Pregnancy Task Force.

In the Acoma-Laguna TC emphasis was given to a variety of health promotion activities including workshops, health-related skits/videos, and a Teen Advisory Committee. Acoma-Laguna provides primary health care services, counseling, patient education, and counseling referrals. The Acoma-Laguna TC strives to utilize existing community resources and to establish a link between other health programs and community social service and health organizations.

2. Bernalillo. The Bernalillo TC, established in 1984, and operated under the auspices of UNM, CIYPD, differs from the Acoma-Laguna and Canoncito in that it receives funds from the New Mexico Health and Environment Department (HED) for services to non-Indian students using the TC. The Bernalillo TC serves Cochiti, Santa Domingo, San Felipe, Sandia, and Santa Ana Pueblos and schools; in addition it serves Algodones Placitas and Corral Elementary Schools, and Bernalillo Middle and High Schools.

This approach to the funding of the Bernalillo TC differed from those health programs conducted at the Laguna-Canoncito-Acoma and Jemez in that all the primary services are provided by the TC staff under contract to the IHS. At Bernalillo TC, the mental health services are provided by the IHS UNM TC staff, and physicians services are provided by HED personnel, in addition to private practitioners under contract to the state. The TC is managed by the UNM CIYPD. Bernalillo provides physical assessments, primary medical services, STD screening and treatment, pregnancy testing and counseling, family planning information and services, referrals and mental health counseling, substance abuse and suicide prevention services.

3. Canoncito. In 1987, a need for a program at Canoncito was identified, and a TC was established at Canoncito High School. No additional funds were allocated for Canoncito; the TC program was established using funds from the Acoma-Laguna TC. The TC operates as a separate program under contract to the UNM, along with the Acoma-Laguna TC.

4. Jemez. The Jemez TC was a community-based teen health care program established in 1987 for the Jemez Pueblo. Initially the TC was locally operated, but subsequently was operated by the UNM under contract with the Albuquerque Area IHS until its closing in

1990. The major goal of the program was to improve health and wellness of teens through promotion of individual responsibility for health behaviors. Like the Zuni TC, the Jemez program was located in tribal facilities rather than a school.

The TC offered a range of services with a concentration on non-clinical counseling and health education, due to the unavailability of trained clinical staff on a continuous basis. Other practitioners provided services on a part-time, irregular basis.

5. Santa Fe. In September 1985, the Adolescent Health Promotion Project (AHPP) a SBC, was established with units in both the Santa Fe Indian School (SFIS) and St. Catherine Indian School (SCIS). The schools are residential, or boarding schools, with enrollment of around 400 students that represent a special target group quite different from other communities. Both schools operate under contract to the Bureau of Indian Affairs.

Services were provided at SFIS four days a week and at SCIS one day a week throughout the school year. Additional clinic days were operated during the summer at selected Pueblos. The program also had limited activities at Espanola High School. The program was subject to annually renewable funds from inception in 1983 until its closing in 1989.

In addition to the students attending the two boarding schools, SFIS and SCIS, the Santa Fe TC served adolescents residing in communities near the IHS Santa Fe Service Unit. Pueblo students accounted for the majority of clientele and clinical visits, followed by Navajo and Hopi students respectively.

The Santa Fe TC was designed to 1) meet the teens need for confidentiality, 2) facilitate teens access to health services, and 3) to reduce the incidence of teen pregnancy, alcohol abuse, suicide, and poor nutritional status. AHPP offered comprehensive care provided by a nurse-practitioner, and provided a range of services that included health education, counseling, family planning, treatment of minor injuries, and physical examination. Referral to the local IHS hospital and other community agencies was also provided.

6. **Zuni. The** Zuni TC, established in 1983, is currently the only tribally-operated facility. The Zuni TC receives funding through the state of New Mexico Title X, Adolescent Pregnancy Prevention Program, and the IHS Maternal and Child Health Program. Prior to 1983, Zuni teens were treated at the IHS hospital. In 1984, the Zuni TC provided services through a purchase order with the Zuni Pueblo Home Health Care Agency. Subsequently, the Zuni Home Health Care Agency contracted with IHS to provide comprehensive health services to the adolescent population through the Zuni TC. The overall administration of the TC is provided by the Home Health Care Agency, and IHS provides medical and clinical staff.

The Zuni TC was established to address the high rates of alcohol abuse related to mental health problems, and the prevalence of diabetes and renal disease of the general population, increasing the risk for teens. In addition, from 1980-1985, 305 teens gave birth, representing 32 percent of all births for Zuni women. The Zuni Teen Health Center is housed in a facility owned by the Zuni Tribe, located in the center of the village, accessible to both the school and community. Prior to the opening of the TC, lack of access and limited confidentiality were problems contributing to lack of adolescent health care. According to the Zuni Census Office, adolescents comprise 20 percent of the total Zuni population on the reservation. There are approximately 1,572 youth between the ages of 11-20. The TC operates independently of other tribal programs, administratively and fiscally.

3.0 Prior Research

There are five studies that directly pertain to this evaluation. Each of these studies is described in the following section.

3.1 CPO **Study.** In 1984, the Center for Population Options (CPO) began a study of a sample of 92 SBCs (28). Of this sample, the CPO study performed an in-depth evaluation of the effectiveness of six SBCs. Effectiveness was measured in terms of 1) utilization, 2) services provided, 3) impact on utilization of medical care, and 4) impact on risktaking and pregnancy prevention. Because the CPO study is one of the few studies evaluating the impact of SBCs, we will review the results in detail. The performance of the Albuquerque Area TCs is compared to that of the SBCs evaluated in the CPO study in the results section of this report (Section III). All six SBCs in the CPO study provided primary health care, and were open daily during school hours. The students served by the SBCs were predominantly minority and from low-income families.

To assess the impact of the SBCs, students attending schools served by the SBCs were compared to students attending similar, nearby schools which did not have a SBC.

Utilization: There was a wide range of clinic utilization-in Dallas, 80 percent used the clinic over the academic year; in San Francisco, and Gary, only about 25 percent of the students used the clinic. The number of clinic visits in a year ranged from 2,357 (San Francisco) to 4,689 (Dallas).

Services Provided: The pattern of services provided by the six SBCs is quite varied. In three of the clinics, the majority of the visits were for primary care; however, in one clinic (Gary), primary care constituted only 5 percent of the visits. Each of the clinics provided reproductive health care-roughly one-quarter to one-third of clinic visits were related to

reproductive health. As with direct care, visits for counseling and health education had a big range-from a low of 1 percent (Dallas) to a high of 49 percent (San Francisco).

Utilization of Medical Services. The CPO study indicated that the SBCs had no significant impact on students' use of emergency rooms or on inpatient hospitalization.

Risk Taking Behaviors. These behaviors were studied indepth in four of the SBCs.

- Absenteeism. Some, but not all, of the SBCs were associated with a decrease in school absences due to illness. None of the SBCs affected unexcused absences (skipping school).

- Cigarette Smoking. One of the four SBCs reported a lower frequency of smoking by clinic users than non-users.

- Illegal Drug Use. No effects were found.

- Alcohol Consumption. Significantly lower consumption was reported by students in 3 of the 4 SBCs.

- Sexual Activity. Students attending schools with SBCs tended to initiate sexual activity at a later age than students attending schools without SBCs. There was no effect on the frequency of sexual activity.

- Contraceptive Use. Sexually active students attending schools with SBCs tended to use contraceptives more than did students attending school without SBCs.

- Pregnancy. The SBCs had no significant effect on pregnancy rates (including male students "getting someone pregnant").

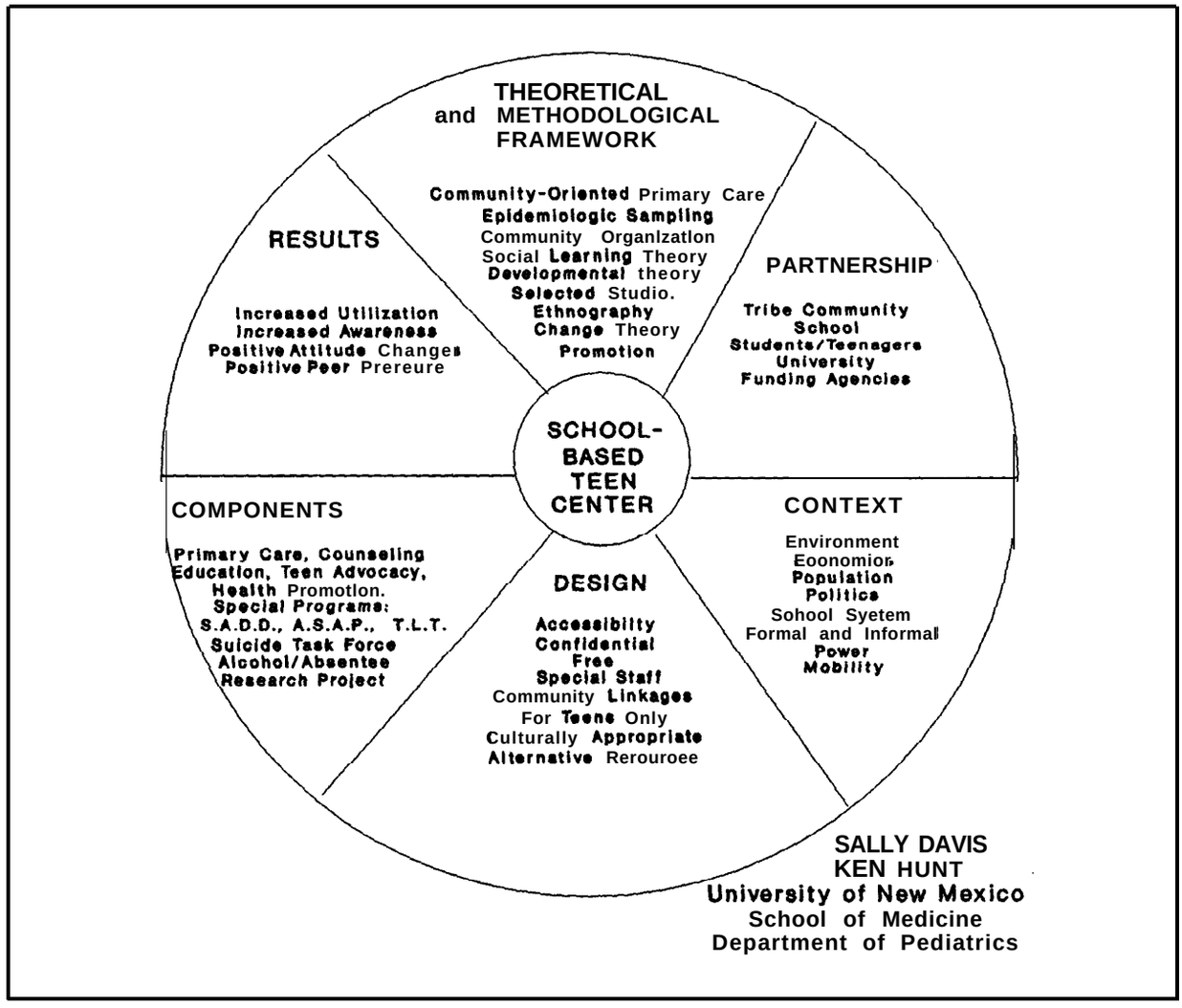
3.2 **Zuni Study.** In 1986, Craig and Schwend conducted a study that focused on user satisfaction with the Zuni TC (11). A questionnaire was completed by 236 adolescents aged **13-20** years in the Zuni public school system. Almost all (96%) of the students were aware of the TC, and 42 percent had used it. Of the students who had used the TC, 79 percent said they would use it again.

Twenty-one percent of the TC users said they would not use the TC in the future. This "TC rejection rate" was lower than that for the only other source of health care in the community-the Zuni Public Health Service Hospital. The rejection rate for the hospital was

42 percent. Reasons cited for rejecting the hospital included lack of confidentiality (57%), long wait (19%), and transportation problems (17%).

3.3 **TCs Administered by UNM.** In 1989, Davis, Hunt, and Kitzes described the model that evolved in developing four (Acoma-Laguna, Bernalillo, Canoncito, and Jemez) of the six TCs included in this evaluation (see Figure 3) (12). This TC model (the UNM model) calls for comprehensive, free services determined by the needs perceived by adults and teens in the community served. These TC services are to be provided by a multi-disciplinary staff able to establish rapport with teens, but who are outside the teen's community (i.e., without longstanding relationships with the teens and their families). Because the TC provider and staff are "outsiders," it was thought that the teens are better able to discuss personal problems and concerns with less fear of violations of their privacy and confidentiality.

Figure 3. UNM Teen Center Model



The UNM model also emphasizes:

- location of TCs at junior or senior high schools

- health promotion rather than a medical orientation; emphasis on substance abuse prevention, family planning, health education and promotion, decreasing school absenteeism, truancy, suicide, and pregnancy

- significant teen involvement in such activities as the Teen Advisory Committee, "brainstorming" during the TC planning phase, theater and skits, newsletter, presentations in workshops and in class, outdoor activities, health promotion fairs and events

- community involvement and networking with other organizations such as social service, health agencies, tribal leadership

- effecting changes in teen behavior in conjunction with community-wide changes in norms, attitudes, and behavior.

Davis et al discuss the development of the Acoma-Laguna TC and the replication and modification of the UNM model in the Canoncito and Bernalillo TCs respectively. The Bernalillo TC serves schools that enroll about 50 percent non-Indians (whites and Hispanics). Funding for the TC is provided by the state as well as IHS, and the physical health services are provided by state personnel and private practitioners under contract to the state.

The authors report that the three TCs are utilized by the majority of the school population (53 percent for Bernalillo and 78 percent at Acoma-Laguna). They conclude that the program is successful as evidenced by changes in attitudes and behavior; however, no hard statistical data are presented to support the conclusion.

3.4 **Sherman Indian School Study.** In 1983, the IHS Phoenix Area funded a teen pregnancy prevention program at the Sherman Indian High School in Riverside, California (49). "Sherman" is a BIA boarding school that enrolls about 500 students aged 14-21 years. The students are members of many different tribes. The teen program was administered by a nurse practitioner, and emphasized confidentiality, accessibility, a non-judgmental approach, coordination with other workers on campus, and marketing to induce students to participate in the program.

The pregnancy prevention program continued for six years (1983-1989) until it was canceled as part of a funding cutback. While the program was active, pregnancy rates at the school decreased from 10.9 to 6.9 percent of female students per year; after termination of the program, the pregnancy rate returned to the pre-program levels. The results also showed an increase in contraceptive use while the program was functioning. No impact was found on high school completion rates.

3.5 **IHS Evaluability Assessment (EA).** In 1988, in response to a request by the Albuquerque Area IHS for a formal evaluation of the TCs, an IHS team was formed to conduct an EA of the centers. The purpose of the EA was to determine whether the TC programs were adequately defined, developed, and structured for a formal evaluation to provide useful information.

The EA team made site visits, reviewed existing reports and literature, and conducted personal interviews to gain a perspective of the management and operation of the TCs at Acoma-Laguna, Bernalillo, Canoncito, Jemez, Santa Fe, and Zuni. An additional site visit was made to the Espanola TC, a school-based program. The EA concluded that the program was sufficiently well-developed to justify a formal evaluation.

4.0 Strengths/Limitations of the Study

The primary strengths of the study are that it was conducted by an independent contractor without a vested interest in the outcomes, and that available data often spanned 7 years. Consequently, the TCs have been in operation long enough to provide enough information indicating how they are performing. Furthermore, two of the six TCs were no longer operational, and records and reports from these two TCs were often unavailable.

The Statement of Work for the proposed evaluation focused on 15 questions (see Section IV. Findings below) that address three broad areas of goal attainment, service delivery, and audience effects:

- Goals and Objectives: Do the services meet program goals? Do they meet the health needs of the Indian teens served? Does the program meet its goals with providers, the community, parents, and teens? Are priority programs related to priority needs? Are objectives specific and measurable?

- Service Delivery: How well are services planned and implemented? Are they implemented as planned? What are the clinical categories of teen visits? Are

tribal leaders and organizations, community groups, and parents involved in the centers' activities?

- Teens Served: For which groups is the program most/least successful? Is community support significant to reaching specific outcomes? Have there been changes in teens' awareness, attitudes, and behavior with respect to pregnancy, preventive health care, smoking, alcohol use, diseases, and others?

To address these questions, the evaluation was originally designed to yield specific measures of service efficiency and effectiveness, where 1) efficiency is the relationship between the resources invested in services and the amount and type of services delivered; and 2) effectiveness is the relationship between the services delivered and the outcomes produced among the teens and other community populations.

After the evaluation had begun, the IHS determined that the collection of interview data would be subject to Office of Management and Budget (OMB) review and approval, and that it was impractical to secure such approval given the time available. Consequently, the study was unable to include interviews of three important groups: 1) student TC users and non-users; 2) parents of either group; and 3) community leaders. Consequently, many aspects of the TCs could not be evaluated.

Assessment of TC effects on such characteristics as sexuality, health status, substance abuse, and nutrition are mostly anecdotal. For example, the registered nurse at the Santa Fe TC was credited with succeeding in convincing a young female client to quit smoking. But how many other youngsters were convinced is unknown. Similarly, measures of the impact of the TCs on community attitudes and commitment to improve adolescent health are largely hearsay. Thus, the evaluation could not collect important data on TC efficiency, effects, and effectiveness as initially planned. Accordingly, the evaluation does not and cannot achieve all of its original objectives.

II. METHODOLOGY

1.0 Design

The study was a qualitative evaluation (10). The approach employed was similar to a case study utilizing repeated, unstructured, indepth interviews with TC and IHS staff, reviews of available data including monthly, quarterly, annual, and special reports. All study data were reviewed with the objective of addressing, to the degree possible, the 15 questions in the Statement of Work.

2.0 Data Collection

Respondent Groups: Unstructured personal interviews were conducted, both on-site and by telephone, with IHS and TC staff who were working or had worked with TC programs.

Other Data: All available TC documents were reviewed including (publications, intake forms, studies), monthly, quarterly, annual and special reports. All TC contracts were reviewed. The monthly and annual reports prepared by the contractors were the main source of data about each TC. Unfortunately, these reports do not give direct information about user and community perspectives on services.

Means of Verification: Data (e.g., number of clinic visits, number of counseling sessions) were compared across monthly, quarterly, and annual reports. When feasible, TC data were compared with published reports on SBCs.

Quality of Records: The evaluation relies mostly on written monthly and annual reports and other TC documents. Some general characteristics of the reports include:

- Frequency of Reporting: Overall, TC staff generally succeeded in meeting their monthly reporting obligation. Where records were available, consecutive monthly reporting was found.

- Quality of Reporting: The format for monthly reports was too unstructured to yield consistent reporting across centers or across different staff members within the same center. For example, in comparing the reports of three different providers in Santa Fe, great disparities in content, specificity, and service

indicators were found. Similar inconsistencies were found in the reports across all six TCs.

- Supervision of Reporting: There is little evidence that administrators were able to improve the quality of reporting within TCs. Over time there was no improvement in the consistency of reporting across TCs. There is no evidence to indicate that any staff were "trained" in proper reporting.

- Maintenance of Reporting: The difficulty of locating reports and other historical TC records suggests that little attention was given to retaining an institutional memory of the project.

3.0 Rating Scales

Seven-point rating scales were constructed to address each of the 15 questions specified in the Statement of Work. Two raters reviewed all the data collected in the evaluation and, working independently, made ratings of the performance of the TCs on the 7-point scales. The interrater reliability of the two sets of ratings was 0.87. This level of reliability is within generally accepted limits.

III. FINDINGS

1.0 History of the Funding of the Six Albuquerque Area TCs

The funding for the first few years of TC operation (1983-1985) is unclear. Apparently, the TCs were financed through purchase orders and IHS Contract Health Service (CHS) purchases. While the Acoma-Laguna TC was established in 1983, the first recorded contracts were with the University of New Mexico (UNM) for the operation of the Bernalillo and Jemez TCs in 1985. Table 4 shows the amount of all the TC contracts. Note that Acoma-Laguna and Canoncito have distinct TCs; however, they were funded through a single contract (with UNM) from 1987-1989.

Table 4 shows that the funding for the TCs has fluctuated over time. For example, the contract for the operation of the four TCs operated by UNM (Acoma-Laguna, Bernalillo, Canoncito, and Jemez) increased from $145,956 in 1988 to $173,934 the following year; an increase of $27,978, slightly over 19 percent. In 1990, the funding for the ACL TCs was $65,000 which was a decrease of more than $4,000 than the amount in 1986 ($69,099). Similarly, funding for the Zuni TC increased 30 percent from 1986 to 1987—from $28,087 to $36,500. The next year Zuni funding decreased almost 8 percent, to $33,933.

The largest contract in any one year was for $173,934 to UNM in 1989 for operating four TCs (Acoma-Laguna, Canoncito, Bernalillo, and Jemez). The smallest contract was in the amount of $25,000 to the UNM in 1985 for operation of the Jemez TC. Over time, the total amount of TC contract awards was slightly under $1 million ($989,930). Since the contract award data in Table 4 are incomplete, it is likely that the actual funding exceeds $1 million.

One perspective on the data in Table 4 is that the four TCs operated under contract to UNM have received disproportionate amounts of funding. The funding for the Acoma-Laguna, Canoncito, Bernalillo, and Jemez TCs totals $722,945. The total funding for the two TCs not operated by UNM (Santa Fe and Zuni) is $266,985. When these figures are normalized by computing the average cost per TC per year, 1985-1990, the UNM average cost ($48,196) is significantly greater than that of the other TCs ($38,141). The explanations for these differences are not clear, but the differences are not a function of the number of visits (see the following section on cost-efficiency).

Table 4. Albuquerque Teen Center Contract Amounts

	Acoma-Laguna-Canoncito (ACL)	Bernalillo	Jemez	Santa Fe	Zuni	Total
Year	$	$	$	$	$	$
1985		34,000	25,000			59,000
1986	69,099	34,000		40,000	28,087	171,186
1987	*	145,956	*	45,600	36,500	228,056
1988	*	145,958	*		33,933	179,889
1989	*	173,934	*		36,230	210,164
1990	65,000	30,000			46,635	141,635
TOTAL	289,381	253,282	180,282	85,600	181,385	989,930
Mean	57,878	42,214	45,071	42,800	36,277	164,988

SOURCE: IHS Albuquerque Area Contracting Officer, Veronica Zuni
*NOTE: Each year, 1987-1989, a single contract was awarded to UNM for operating four TCs (Acoma-Laguna, Bernalillo, Canoncito, and Jemez). The totals for these TCs were computed using the average of the total contract awarded for each year, 1987-1989.

Interviews with the TC contractors revealed that both the level of funding and the funding cycle were among the most difficult problems they faced. The contractors and staff stated that the level of funding was insufficient to support a number of important needs such as:

- An evaluation specialist to assist in the design of evaluation of the TC and in the collection and analysis of evaluation data
- Expanding the hours of operation to more than a few hours each week
- Hiring part-time staff with specialty skills (e.g., psychologists, dieticians, pediatricians)
- Funding transportation of TC staff for family visits, and other activities.

1.1 TC Cost-Efficiency. The cost per TC visit was computed as a measure of cost-efficiency. This measure was computed by dividing the amount of the contract award by the total number of visits or encounters reported in TC reports/documents. There are numerous limitations on the adequacy of this cost per visit measure. First, it does not include the value of services provided by the IHS such as physicians services, specialty health services, and supplies. Furthermore, important TC data had not been collected or was not available. For example, the amount of TC funding in the early years could not be determined; the number of teens served or the number of visits in several years was unknown. Therefore,

we could not compute the measures of cost-efficiency for all TCs across all years. Table 5 presents the measures according to the available data.

Table 5. Cost per Visit of the Albuquerque Area TCs

Year	Acoma-Laguna-Canoncito	Bernalillo	Jemez	Santa Fe	Zuni
1996	65.68	33.07		41.41	16.62
1967	46.47	11.39	124.43	31.17	21.66
1990	61.79	27.37			26.69
Mean	57.96	23.91		36.29	22.26

There was large variation in the cost per visit both between the TCs and within a TC over time. The cost per visit ranged from a low of $11.39 at Bernalillo in 1987 to a high of $124.43 in Jemez. This variation in cost per visit is widely determined by variations in the amount of the contract award (see Table 4) rather than variations in the number of visits (see Table 6). It seems likely that the amount of funding provided the TCs has been more influenced by the availability of funds rather than a program budget or explicit cost allocation methodology. For example, the budget for the TCs operated by UNM increased over 19 percent from 1988 to 1989 not because there were dramatic changes in the number of clients served, but because more funds were available in 1989 than in the prior year.

Table 6. Number of Visits to Albuquerque Area TCs

Year	Acoma-Laguna-Canoncito	Bernalillo	Jemez	Santa Fe	Zuni	Total
1966	1,052*	1,028		966	1,670	4,716
1967	1,047*	4,271**	391	1,463	1,670	4,571
1990	1,052	1,079			1,660	3,808
Total	3,151	6,376	391	2,429	5,000	13,095
Mean	1,050	1,062		1,215	1,667	4,365

*NOTE: To maintain consistency with funding data, the visits to the Acoma-Laguna and Canoncito TCs were combined; in addition, the number of visits for these TCs in 1966 and 1967 were estimated from 1990 data.

**This figure was taken from an annual report; it is so much higher than other data that it is likely to be an error; therefore, this value was excluded from the totals and from the means.

With two exceptions, the number of client visits is similar across TCs over time. Generally, there were about 1,000 client visits except for Jemez in 1987 (391 visits) and Bernalillo also in 1987 (4,271 visits). The pattern of visits in Table 6 suggests that the Bemalillo data for 1987 is an error. The data were obtained from an annual report. It is likely that visits were defined in a different way in that report.

Over a 3-year period (1986, 1987, and 1990), at least 13,095 visits were reported, excluding the questioned 4,271 visits reported by Bernalillo in 1987. Thus, the average number of visits per year across all TCs was 4,365.

The cost-efficiency data give rise to questions of equity in funding across TCs, and the quality and quantity of services provided by the TCs. It appears that the Zuni and Santa Fe TCs have been able to produce significantly more encounters per dollar than the other TCs. Another way this difference in cost-efficiency can be seen is by comparison of the average cost per visit of the TCs operated by UNM ($51.57) with that of the other TCs ($39.74). Again, these differences probably reflect the larger awards for the other TCs than those to Zuni and Santa Fe. The rationale for the variation is unclear.

Another perspective on TC cost-efficiency is that the average cost of operation per center per year ($36,664) is less than the typical cost of treatment for a teen suffering from AIDS.[4]

1.2 Funding Cycle

Contract awards for the TCs were usually for a 12-month period beginning in October (the start of the federal fiscal year). Until 1990, the awards did not include option years. Consequently, budgeting, planning, recruiting, and staffing were difficult for the TC contractors. Furthermore, the discrepancy between the federal fiscal year (starting in October 1) and the school year (generally starting in September) made it difficult to get the TC project year fully functioning during the first month of school when many extracurricular plans and activities are scheduled.

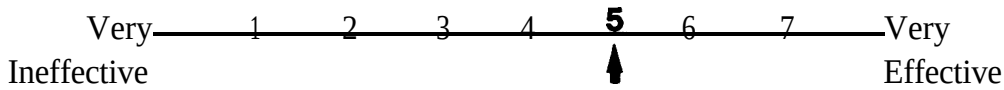
2.0 Evaluation Study Questions

The Statement of Work (SOW) for this project posed 15 questions to be addressed by the evaluation. Each of these questions is addressed in turn in the following section. Whenever

[4] Average cost per center per year was computed by dividing the total funding, $989,930 by the sum of the years was available for each TC (27 years).

possible (i.e., given sufficient data and uniformity across the six sites), the overall performance of the TCs with respect to each evaluation question is rated on a 7-point scale.

1. How effective is the TC in meeting the health needs of the Indian teens served?



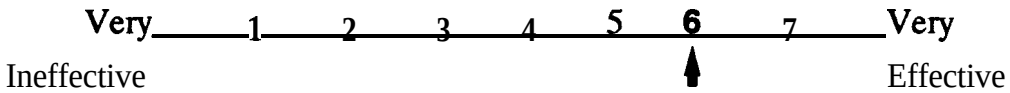
This question is difficult to answer because the TCs generally lack formal, written needs assessments. There is a great deal of information that describes the health needs of teenagers throughout the nation, and IHS has published data that show the needs of Indian youth. Furthermore, the TC contractors have compiled statistics and other information about the needs of adolescents in the communities served. Nevertheless, none of the IHS or TC staff interviewed could produce a formal needs assessment that guided the development of the TCs.

The TC mission statements and interviews with TC staff indicated that the health care needs of adolescents in the six communities include teen pregnancies, alcohol/substance abuse, STDs, suicide, accidents, and school dropout. Unfortunately, there are virtually no systematic data available on the impact of TCs on teen fertility, school attendance, the incidence and prevalence of STDs, accidents, and suicide. Interviews with TC staff revealed a consensus that the TCs have a significant positive impact on the teens served, but that many of these effects are difficult to measure and demonstrate.

Several TC staff reported that the major accomplishments of the TCs were that 1) functioning centers had been established and maintained despite many obstacles, including low levels of funding, and 2) significant progress had been made in the community's appreciation of the crisis in the health of its adolescents, and in the community's commitment to ameliorate this crisis. Based on the interviews and review of the TC reports, the TCs were rated to be "slightly" effective in meeting the health care needs of the teens served.

It is noteworthy that evaluations of SBCs have generally failed to produce striking results (8, 30). In dealing with the major threats to adolescent health, SBCs attempt to modify the attitudes and behaviors of teens with respect to sexual behavior, nutrition, substance abuse, and risk-taking. It is widely recognized that these behaviors and related attitudes are especially resistant to change (53). Therefore, this report contains a recommendation that warns against unrealistically high expectations of TC program impact on such behaviors.

2. How effective was the TC in program planning to meet health care needs of teens? Were priority programs related to priority health needs?



The plans for the development of the TCs were generally well conceived. While there are presently over 100 SBCs in operation throughout the United States, in 1982 (when plans for the first TCs were being developed) there were few SBCs and none existed in "Indian Country." The Albuquerque Area TCs were pioneering efforts, planned and developed without the benefit of examples of existing TCs.

It is clear that the planners, both within IHS and the various TC contractors, developed their plans using a broad knowledge of adolescent health. The planners were aware of, and used information about, SBCs, and information about the major threats to adolescent health (e.g., STDs, teen pregnancy, accidents, substance abuse).

Equally important, there was reasonably good rapport and communication among four groups: 1) key administrators in the Area Office (e.g., the Chief Medical Officer and Area Director), 2) the IHS Project Officers for each TC, 3) key TC project staff, and 4) some interested community members (including teens in the community). Such communication and coordination is very difficult to achieve, but it is critical to the success of the TCs.

Reports show a wide span of TC services and activities which cover many areas and show a well-developed plan in action. These include such things as counseling and rap sessions with individuals and groups, primary health care and physical exams, numerous presentations on alcohol and drug abuse to students from upper elementary age through high school, family planning services, plus a very active teen theater group which, reports say, present extremely effective skits about substance abuse to large and small groups of other students, parents, and groups throughout the community. Other services and activities include the Adventure Program which takes teens on outdoor adventures to learn life skills, and promotion of activities for the SADD (Student Against Drunk Driving) group.

The TC planners put to good use principles of project planning and of community development. Efforts were made to involve community members. These efforts were sometimes marginally successful or worse; however, this reflects a problem in execution rather than in planning. Thus, the TCs' planning was rated as being "moderately" effective.

2a. Were priority programs related to priority health needs?

The answer to this question is a qualified **"yes."** First, the communities served (including teens) were encouraged to participate in the planning and direction of the **TCs** through advisory committees. This provided a mechanism for influencing the TC program based on the community's perception and understanding of its health care needs.

The major focus of the **TCs** included sports physicals, primary health care, alcohol/substance abuse counseling, treatment and prevention of **STDs,** teen pregnancy, and suicide prevention. These efforts were conducted in the context of health education and promotion. These priority areas are in accordance with the priority health needs of teens and Indian youth in general; however, without formal needs assessments, the empirical base of the health care needs of local teens is unknown.

3. Are **program objectives of the Teen Center specific and measurable?**

The degree to which the TC program objectives were specific and measurable is rated to be frequently not measurable.

Not Measurable — 1 — **2** — 3 — 4 — **5** — 6 — 7 — **Very** Measurable

Only the Zuni and Santa Fe **TCs** were able to produce examples of specific measurable objectives. These measurable objectives were specified in the proposals submitted in response to the IHS TC procurements:

<u>1990 Zuni TC Procurement</u>. The Statement of Work (SOW) included a requirement that the contractor **"provide** high quality medical care to all **adolescents...."** The contractor's proposal stated that,

> "the Zuni Teen Health Center will provide medical services coordinated and developed by an RN/Nurse practitioner during **150** four hour clinics over a period of 50 weeks.... In addition to these medical services, 8 hours of mental health services will be provided weekly. The total actual clinic hours for the 50 weeks will be **200** hours."

1986 Santa Fe Procurement. The proposal for the operation of the Santa Fe TC included the following measurable objectives:

> **"Sub-goal 3: to increase students' responsibility for their own health.**
>
> **Objective 1: By 6-5-87, achieve 25% student participation in self-help health promoting activities:**
>
> 1. **Establish health boards in each or a combination of grade levels.**
> 2. **Offer opportunities to participate in the following activities: weight management classes, group exercise programs, SADD activities, peer counseling programs, and the like.**
> 3. **Prepare and provide leadership training to student leaders (Health Boards and others) to enhance better group process.**
> 4. **Develop and administer survey to evaluate student programs."**

4. **How well did the program plan achieve its goals with providers, community, parents, and teens?**

To the degree that **TCs** lacked measurable objectives, it is difficult to answer this question. Nevertheless, the Annual Reports and interviews of TC and IHS staff did permit some qualitative judgments with respect to this question. These judgments with respect to the achievement of goals for each of the four groups (providers, community, parents, teens) is rated and discussed in turn below.

4a. Achievement of Goals for Providers

LOW **1 2 3 4 5 6 7** High

Of the four groups, program goals for ***providers*** were the least well articulated. Nevertheless, the relevant TC goals seemed to include establishing good rapport, communication, services, and referrals by and with providers at the nearest IHS hospital or Service Unit. These goals were reported to be largely achieved.

Often the communication between the TC and IHS providers was facilitated by part-time physicians working for the IHS hospital or Service Unit. These physicians provided needed services to TC users. At some **TCs** these physicians services were used effectively, other **TCs** reported problems working with them. Also, the THS Project Officers for each TC were effective advocates for, and facilitated communication with, the **TCs.** Therefore, the achievement of TC goals for providers is rated to be **"fair."**

4b. Achievement of TC Goals for the Community

Low 1 **2** **3** **4** **5** **6** **7** High

On the positive side, the **TCs** have been able to develop positive events and relationships with individuals and groups in the community. Examples of successful events include:

- Skits and dramatic performances acted by TC users for the tribal council, other schools, and community groups. These performances dramatized such issues as the destructive effects of alcohol abuse on family life and how to deal with suicidal teenagers.

- Recruitment of teens and other community members to serve on the **TC** advisory board.

- The Zuni TC has for at least 2 years involved local merchants/business in sponsoring programs and raffles. The new health communicator had begun, at the time of the site visit, more actively building on a community-involvement program of the previous year to get sponsorships and donated prizes and publicity materials from local merchants.

- The Bernalillo TC had an Advisory Committee in the past; however, the committee is now defunct. The staff recognize a need, and are working to get the Advisory Committee reactivated. The responsibility of organizing this committee is dependent on the program manager. The program manager is responsible for networking with organizations, tribal leaders, community groups, parents, and teens. Bernalillo receives support and cooperation from the school administration and staff. The center receives no involvement from the tribal police or juvenile delinquent centers; however, it does receive referrals by probation workers.

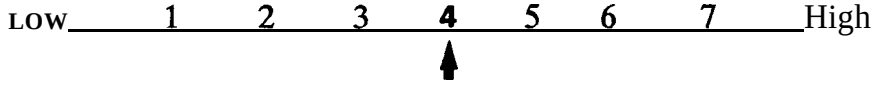
Getting the community to understand the nature of the crisis in adolescent health, and to make a commitment to improve adolescent health has been a goal (often an implicit, unstated goal) of the Albuquerque Area **TCs.** To a significant degree, the **TCs** seem to have been successful in focusing the attention of some community groups on adolescent health issues. Commitments of support, time, and resources have been obtained from elected tribal officials, school administrators and personnel, teens, IHS administrators and staff. Furthermore, it is possible that the **TCs,** with their focus on health education,

promotion and disease prevention, can become a vehicle by which Indian communities become more effective in improving their health status.

On the negative side, TC staff voiced concern that the evaluation be conducted with the utmost sensitivity so as to avoid upsetting a delicate balance in community support. In interviews, TC staff expressed concern that strong opposition to various aspects of TC operation could be awakened or reawakened by the evaluation. This concern is to be expected because the TCs deal with problems (e.g., teen sexual behavior and pregnancy, STDs, suicide) that are highly charged, and for which no clear consensus exists in most communities. TC staff are aware of these problems, and work hard to avoid provoking community discord and rejection of the TC. Despite these efforts, significant problems have occurred. For example, a serious embroglio occurred over the dissemination of birth control supplies at the Bemalillo TC. The School Board voiced support of the TC, but voted to prohibit the dissemination of birth control devices on school grounds (where the TC is located). The achievement of TC goals for the community were rated as "fair."

The relationship with the community represents both one of the greatest potential strengths and one of the greatest potential weaknesses of TCs. Under optimal circumstances, the TCs become a vehicle for the transformation of community attitudes, values, and behavior to a pro-health orientation. This transformation can produce dramatic decreases in problems associated with smoking, alcohol abuse, poor diet, and other behavior-related illnesses. Under negative circumstances, a TC can set off division and hostility associated with strongly divergent beliefs regarding the sexual behavior of teenagers, and the best ways to prevent unwanted pregnancies, STDs, substance abuse, and suicide.

4c. **Achievement of Goals for Parents**



Consistent with efforts to establish a good relationship with the community, TCs have tried to maintain good relationships with the parents of TC users and potential users. The results of these efforts have been mixed. On the positive side, the TCs have developed and distributed parental consent forms, and the TCs have tried to get parent representation on the TC advisory boards.

On the negative side, parents, like other community members, sometimes have divergent, strongly held views that are (or seem to be) in opposition to TC goals/and or practices. Furthermore, with schools, it has been difficult for the TCs to obtain consistent support from parents who have many competing responsibilities and interests, and who face a number of

barriers (e.g., transportation to TC, funds, child care) to participation and support for the TC. The achievement of TC goals for parents are rated to be **"neither** high nor **low."**

4d. Achievement of Goals for Teens

LOW 1 2 3 4 5 6 7 High

The achievements of the **TCs** in meeting goals for teens is discussed in detail in response to question 1 earlier in the Findings, and is also discussed in response to questions **6** (especially **6c),** 8, and 9 below.

5. Were the activities implemented as planned?

Based on the data available for this study, most activities were rated to be mostly implemented as planned.

Not Implemented Planned 1 2 3 4 5 6 7 Implemented as Planned

The IHS has facilitated the planning process by specifying in the TC contracts both specific and general requirements and standards to be met by the **TCs.** As shown in their monthly, quarterly, and/or Annual Reports, the **TCs** have generally done a good job in developing the centers in accordance with these requirements. Based on the experience in the operation of **TCs** over the last 8 years, additional requirements have been suggested in the Recommendations Section of this report.

The Albuquerque Area **TCs** provide a wide range of services. Tables **7a-c** summarize these services, and show how the **TCs** compared to a sample of 92 **SBCs** as reported in the CPO study **(30).** In general, the services offered by the **TCs** are similar to those offered by the **SBCs** in the CPO study. All of the Albuquerque Area **TCs** provide medical services, counseling and education, reproductive health, and other services. Each of these general categories of services is discussed in turn.

Medical Services. All of the Albuquerque Area **TCs** offer medical services including sports physicals, diagnosis and treatment of minor injuries, and prescription of medication. As the principal site for sports physicals, the **TCs** have been able to develop and maintain a **pro-**

student, positive ambiance and to avoid the image of a place students go to solely to deal with problems. Table 7a shows some variation across the five TCs in the medical services provided: For example, the Santa Fe TC provided immunization and management of clinic illnesses, but the Jemez TC did not. It was not clear if the Zuni TC provided these services. Most of the 92 SBCs in the CPO study provided immunization (89%) and management of chronic illnesses (75%).

Table 7a. Medical Services Provided by Albuquerque Area TCs and by other School-Based Clinics

Medical Services Provided	Percent of Other SBCs	ACL	Bernalillo	Jemez	Santa Fe	Zuni
Sports/work physical	98	Y	Y	Y	Y	Y
Diagnosis and treatment of minor injuries	97	Y	Y	Y	Y	Y
General primary health care	96	Y	Y	Y	Y	Y
Lab tests/referrals	96	Y	Y	Y	Y	Y
Prescribe medication	96	Y	Y	Y	Y	Y
Assessment or referrals to local physicians	93	Y	Y	Y	Y	Y
General physical	91	Y	Y	Y	Y	Y
Immunizations	89	Y	Y	N	Y	?
Chronic illness management	75	?	?	N	Y	Y
Dispense medication	74	Y	Y	Y	Y	Y
Dental services	34	N	N	N	N	N
Pediatric care for infants	29	?	?	N	?	?

Counseling/Educational Services. All the TCs provided health and nutrition education, pregnancy counseling, weight reduction programs and substance abuse programs. Table 7b shows that the majority of the 92 SBCs in the CPO study also provided similar services. Interviews with TC staff indicated that the counseling and education services are central to the mission of each TC. Special emphasis is placed on alcohol/substance abuse prevention. All the TCs provided suicide prevention, and crisis intervention services. The degree to which similar services are provided by SBCs is unknown.

[5] In Tables 7a-7c, the Acoma-Laguna and Canoncito TCs are combined (under the column entitled "ACL") because they were funded under a single contract, and the information reported for these TCs is often aggregated in a single set of data. For purposes of comparison, Tables 7a-7c contain a column that presents the percent of 92 SBCs studied by the Center for Population Options that provide the services.

Table 7b. Counseling/Educational Services Provided by Albuquerque Area TCs and by other School-Based Clinics

Counseling/Educational Services Provided	Percent of Other SBCs	ACL	Bernalillo	Jemez	Santa Fe	Zuni
Health education	98	Y	Y	Y	Y	Y
Nutrition education	96	Y	Y	Y	Y	Y
Mental health/psychosocial counseling	89	Y	Y	Y	N	N
Pregnancy counseling	83	Y	Y	Y	Y	Y
Sexuality education in class	83	Y	Y	N	Y	Y
Weight reduction programs	79	Y	Y	Y	Y	Y
Family counseling with student and parents	62	Y	Y	N	?	?
Drug/substance abuse programs	61	Y	Y	Y	Y	Y
Crisis/suicide intervention	?	Y	Y	Y	Y	Y

Reproductive health and family planning services. The initial impetus for the TCs was the Acoma-Laguna Teen Pregnancy Task Force. The Task Force developed from the communities' concern about increasing numbers of teen pregnancies. Table 7c shows that all of the TCs offered family planning services including counseling on birth control methods and referrals for birth control methods and exams. In addition, all the TCs offered AIDS education at the centers, and most TCs provided classroom AIDS education at the local schools. Similar reproductive health services were provided by most of the SBCs in the CPO study.

Table 7c. Reproductive Health Services Provided by Albuquerque Area TCs and by other School-Based Clinics

Reproductive health and family planning Services Provided	Percent of Other SBCs	ACL	Bernalillo	Jemez	Santa Fe	Zuni
Referrals for prenatal care	93	Y	Y	Y	Y	Y
Pregnancy tests	88	Y	Y	Y	Y	Y
Counseling on birth control methods	94	Y	Y	Y	Y	Y
Diagnosis/treatment of STDs	78	Y	Y	N	Y	Y
Gynecological exams	77	Y	Y	N	?	?
Referrals for birth control methods and exams	71	Y	Y	Y	Y	Y
Follow-up for birth control users	71	Y	Y	Y	Y	?
Exams for selected birth control methods	70	Y	Y	Y	Y	?
Prescriptions for birth control methods	54	Y	Y	Y	Y	?
AIDS education program in class	38	Y	Y	N	Y	?
AIDS education program in clinic	34	Y	Y	Y	Y	Y
Prenatal care on-site	28	N	N	N	Y	Y
Dispensation of birth control methods	20	Y	Y	Y	Y	Y
SADD	?	Y	Y	N	Y	?

SOURCE: Kirby, D., Waszak, C.S., and Ziegler, J., An *Assessment of Six School-Based Clinics: Services, Impact, and Potential* (Washington, DC: Center for Population Options, October 1989). TC Annual Reports.

Assurance of Confidentiality. One of the frequent reasons given for why teens under-use the IHS hospital outpatient and/or Service Unit services is that they fear they will be seen by family or friends of relatives who might later "tell their parents." Regardless of the nature of their visit, they are said to feel stigmatized (e.g., a young girl may be suspected falsely of pregnancy). School-based facilities are generally thought to give students a greater sense of confidentiality than TCs at health clinics. The 1988 Evaluability Assessment concluded the same.

In Jemez, confidentiality became a problem because of the type of facility in which the TC was based (see Accessibility below). But a second problem was that the local physician who provided clinical services by appointment, one day a week, was also a local family doctor. His services were not well used by the teens.

The visiting psychologist reported that she had more success meeting teens at their homes than at the center. Despite the potential for parents to inhibit their children, the psychologist felt that she had better results in the home than at the community center.

Overall, the TCs carefully protect the confidence of their clients. No evidence was found of any violations of confidentiality. In fact, UNM staff refused to permit the evaluation contractor access to TC user records for fear of violating the Privacy Act (see Appendix 1).

Staffing

Staffing the diversity in the six TCs, there is probably no typical staffing pattern. But it is not unfair to say that the TCs tend to be served by a team consisting of:

- a part-time physician on loan from IHS who visits the TC a few hours each week for perhaps over one or two days
- a nurse, nurse practitioner, social worker, or physician's assistant who may also serve as the TC manager
- one or more counselors/educators who work part-time
- part-time consultants, such as psychologists, nutritionists, pediatricians, gynecologists.

There is usually one full-time and one or two part-time staff working at the TC at any point in time.

As is the case in many situations in Indian health, the TCs must balance the need for highly trained, experienced, professional staff (who tend to be non-Indian) with the need for local, culturally sensitive individuals, who are able to understand and "connect" with teens (these persons tend to lack technical training and credentials). In general, the TCs have done a good job in recruiting qualified and effective staff, especially in the context of year-to-year contracts with little certainty of continued funding.

6. **How effective were the activities in achieving the goals of the program?**

The effectiveness of TC activities in achieving program goals were rated separately for each of the six (a-f) goals discussed below.

The program goals were described in the Statement of Work, the TC contracts, the contractor's proposals submitted in response to the procurements, and in several TC documents such as mission statements. The following is an example of program goals extracted from the 1985 contract between IHS and UNM for the operation of the **Acoma-Laguna** TC:

> "The Adolescent Clinic will provide:
>
> a. professional medical services
> b. professional mental health services
> c. preventive mental and physical health education and counseling
>
> **Services**
>
> 1. Planning and management of the Adolescent Health Clinic.
> 2. Gathering and compiling data.
> 3. Provide primary health care and preventive health services to include pregnancy testing, physical examinations, provision of contraceptive alternatives, PAP smears, VD testing, counseling, therapy, group and peer sessions, rap sessions, workshops, and educational sessions.
> 4. Management will be carried out through case consultation.
> 5. Evaluation of services by analysis of appropriate surveys, interviews, epidemiological data, and health status statistics.
> 6. Provide technical assistance for other communities desiring to set up an adolescent health program."

Activities of the Acoma-Laguna TC relative to each of these six program goals are discussed below. These activities and achievements are representative of the other **TCs.** Examples from other **TCs** are provided when available information suggested substantial differences from those in Acoma-Laguna.

As discussed in response to question 3 above, the contractor may have developed measurable objectives for the six program goals specified in the SOW; however, interviews of contractor staff and inspection of project materials failed to reveal such objectives.

6a. Planning and Management Activities. The effectiveness of TC planning and management activities were rated to be slightly ineffective.

Ineffective 1 2 3 4 5 6 7 Effective

TC planning was discussed in response to question 2 above. TC management appears to have been uneven, and significant problems and potential problems were observed. For example, none of the **TCs** used timesheets to record the actual days and hours worked by staff. The lack of an adequate method of time keeping is a serious administrative omission

and the contractors appear to be in violation of Federal Acquisition Regulations (FAR). This finding does not imply malfeasance or fraud on the part of TC contractors or staff. On the contrary, there is evidence that TC staff are highly motivated and committed to ameliorating the crisis in adolescent health in the communities served. Staff appear to have "gone the extra mile" by such acts as using their personal automobiles without compensation on TC business and to work on weekends or late hours.

A related example of poor personnel management practices is the failure of the TC contractors to develop and use job descriptions. Staff at several TCs stated that they were given a copy of the Statement of Work as a guide for their work activities. It appears that staff performance evaluation is done in a haphazard fashion.

These and other personnel management issues are compounded when the contractor operates multiple TCs distant from the contractor headquarters as is the case with UNM. For example, in Jemez, which is about 65 miles and an 80 minute drive from Albuquerque, interviews among former staff revealed that the UNM contractor was ((disengaged" from the community, and the TC. Staff were, in the words of one informant, "disenchanted": Although the Jemez staff expressed understanding of UNM problems (distance, four centers' caseload), they complained that they got little direction, no confirmation, and no planned strategy ("our strategy was 'show a movie.'"). Although five percent ($1,400) of the annual budget was allocated for UNM travel to Jemez, staff stated there were "very few" visits and that the UNM managers were unresponsive and "confrontational" to staff complaints and suggestions.[6]

6b. Gathering and Compiling Data. The effectiveness of TC data collection activities were rated to be slightly ineffective.

Ineffective 1 2 3 4 5 6 7 Effective

The 1985 contract with UNM for the operation of the Acoma-Laguna TC provided detailed reporting requirements in Section F-Deliveries or Performance:

"1. Period of Performance

Performance under this contract shall commence on September 20, 1985, and shall not extend beyond the completion date of September 19, 1986, unless the period is changed by written modification of the contract.

[6] UNM Contract managers repudiated this criticism, characterizing it as complaints made by disgruntled former employees (see Appendix 1).

2. Program Reporting Reauirements

The Contractor shall submit two (2) copies of the following reports, in narrative form, to the Project Officer. The Project Officer will retain one copy and forward the second copy to the Contracting Officer for contract compliance. Reports A and B are due by the 5th working day of the following month. Report C is due by September 5, 1986.

A. Progress report which include details of the activities conducted in **the adolescent clinic and** community. Should include problems with completion of tasks and future plans/schedules.

B. A statistical count which provides information as to the nature and extent of services provided.

C. Final Report. **A final report due by September 5,** 1986, recapping accomplishments and **problems. This report must contain evaluative** data specific to health outcomes and disease prevention in the adolescent population; and epidemiological data."

In general, all the TCs had similar reporting requirements, and all of the TCs had a reasonable degree of compliance with the requirements. However, there was a major problem with the TC reports-the requirement for "statistical counts" was vague. Consequently, each TC developed a unique system for identifying, counting, and reporting client encounters and the services provided. The wide variation in TC reporting severely limited comparisons among TCs in this evaluation. This lack of uniformity and comparability of TC utilization data is the basis for a strong recommendation for standardizing a core set of TC data.

Many of the professional staff worked at more than one TC; some of the activities were spoken of in general terms rather than specific to a center, and therefore those activities could not be broken out by center. Some activities were given different names by staff members, again making it difficult to determine where they could be categorized. In addition, different staff members often appeared to be involved in the same activities; it was difficult to determine, for instance, whether 5 clinics were held, or 10, because each one listed 5—were they the same clinics, or possibly different events entirely? Were they overlapping or separate, partially the same and partially not? In many cases, this could not be determined. Some staff operating under a program different from others may have submitted some of the same statistics, i.e., it appeared when examining the data that regular counseling statistics may have been counted twice, once under the counseling professional and once under the Alcohol and Substance Abuse Program. Copies of reports were incomplete and did not have all the information that was originally attached, which would have provided more statistical information. In some cases, only summary reports were available, which did not provide statistics or detailed descriptions that could be extracted as viable data. There were no comprehensive reports found which delineate the strengths and weaknesses of the project as perceived by staff or administrators.

6c. Provision of Primary Health Care and Preventive Health Services. As discussed in response to Question 1, there is little quantitative evidence available about the effectiveness of the primary health care and preventive health services provided by the **TCs.** Nevertheless the qualitative data collected in the evaluation supported the following ratings of effectiveness of TC primary health care and preventive health care services to be slightly effective.

Ineffective 1 2 3 4 **5** 6 **7** Effective

6d. Management through Case Consultation. To a considerable extent, TC services involved health education and counseling activities incompatible with management by case consultation. This management approach was not included in most TC contracts. An example of a different approach to management is the requirement for a quality assurance plan in the 1990 contract for UNM to operate the Bernalillo TC:

> **"The contractor shall develop a mental health quality assurance plan by the end of the first month of the contract. The plan will provide a process to identify deficiencies, take corrective action, and review action taken.**
>
> **The plan must include:**
> - **Case reviews at least every three months**
> - **Record review each three months**
> - **Client and referral service satisfaction survey**
> - **At least two other clinical indicators relevant to the program such as referral response time follow-up of suicide attempts and gestures, utilization and coordination with outside agencies."**

This contract requirement represents an important contribution by IHS to the planning and administration of TC services. The TC model developed as part of this evaluation advocates further specification of TC contractor standards of performance. For example, the contract should require not only that the contractor develop a quality assurance plan, the contract should also specify how implementation of the plan is to be reported in regular (monthly or quarterly) progress reports.

6e. Evaluation of Services by Analysis of Appropriate Surveys, Epidemiological data and Health Status Statistics. The effectiveness of the **TCs** evaluation activities was rated as mostly ineffective.

Ineffective 1 **2** 3 4 5 6 7 Effective

Interviews with UNM TC managers indicated that large amounts of survey and other data had been collected by the contractor but, despite the contract requirement, the data had not been analyzed or reported.

The 1985-86 contract for the operation of the **Acoma-Laguna** TC specifies activities to be performed by the contractor in conducting a summative evaluation:

> "... The following methods will continue to be utilized: questionnaires; interviews; unobtrusive measures (rates); documentation of utilization and pre- and post-tests of knowledge and attitudes.
>
> Evaluation will be greatly facilitated this year by the use of a microcomputer obtained through the absentee-alcoholism research grant. Technical assistance will also be available from the researcher/evaluator for that project. Dr. Schoepfle's C.V. is included with the others. Guidelines for evaluation will be provided by Sexuality Education: A Handbook for the Evaluation of **Programs** by Douglas Kirby."

UNM TC program managers stated that the pre- and post-tests were not conducted.

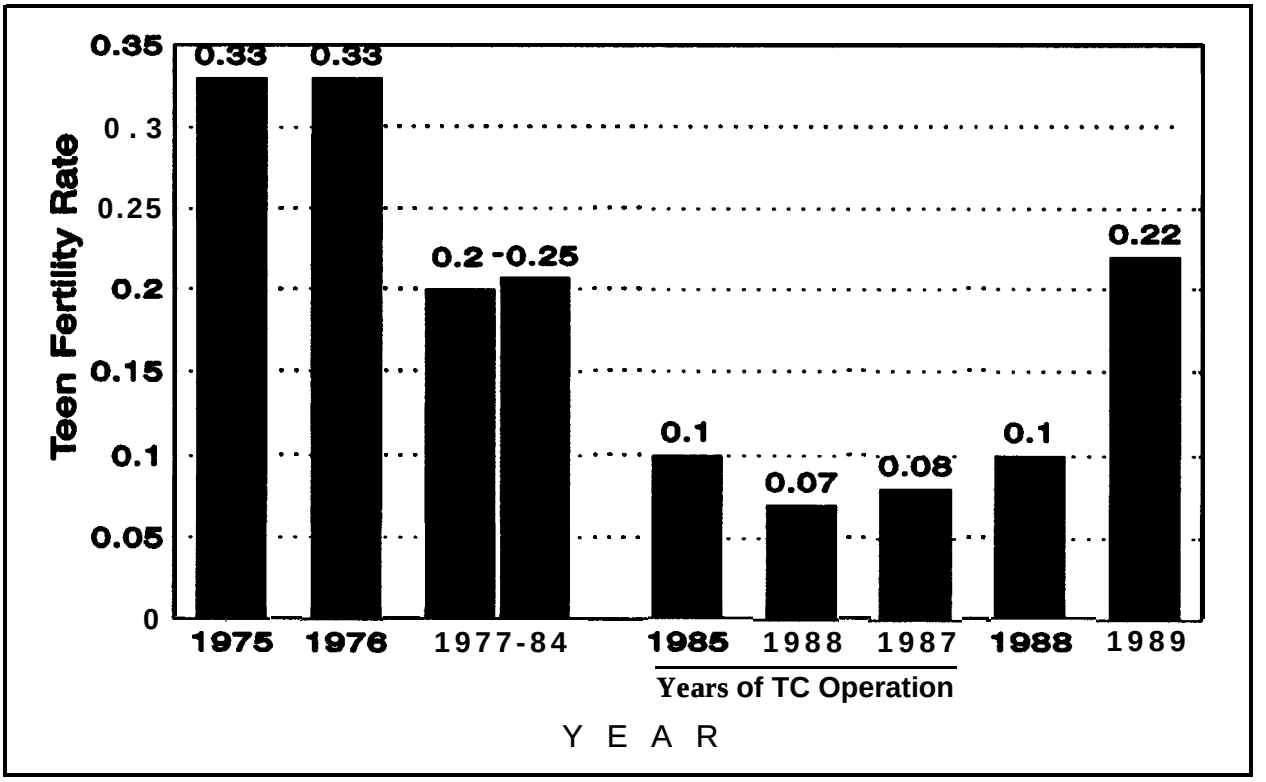
Similarly, the 1985 contract for the operation of the Jemez TC called for an evaluation of the services provided including:

> "a) clinic utilization statistics
> b) comparison to previous IHS ambulatory care utilization date and rates specific for adolescents
> c) implementation of self administered teen satisfaction surveys and questionnaires to assess individual adolescent's responses concerning the quality of care they receive
> d) **pre/post** tests will be administered for offered educational classes and programs to show and assess if learning of information did occur
> e) assigned and employed program staff will do quarterly program reviews and evaluations
> f) comprehensive health care services will be determined by tabulating the number of treatments and referrals. Utilizing the SOAP format, the team centered care will be documented by individual providers recording of services provided."

While monthly progress reports included some utilization data, no evidence was found that a serious attempt was made by the contractor to evaluate the TC services as required by the

contract. Jemez TC staff did provide some data relevant to the goal of teen pregnancy prevention. These data are displayed in Figure 4.

Figure 4. Jemez Teen Fertility Data



Interpretation of these data is complex. It is unlikely that the drop in teen fertility between 1984 to 1985 (perhaps as much as 15 percentage points, from .25 to .10) can be attributed to TC operations because most of the pregnancies were probably conceived prior to the opening of the TC in 1985. Likewise, the increase in fertility in 1988 (.10 up from .08) cannot be attributed to the closing of the TC in 1987 because many of the pregnancies may have been conceived in 1987. On the other hand, the jump in fertility to .22 in 1989 (up from .08 in the last year of TC operation) may reflect the cessation of TC operations. While the validity of these data is not certain, they are consistent with the hypothesis that TC operations decrease teen pregnancies. This finding should stimulate better TC record keeping and information systems.

Most TC contracts did not require the same level of evaluation of services as the 1985 contracts for the operation of the Acoma-Laguna and Jemez TCs. In any case, no TC contractor was able to produce evaluation of (or even any data indicating) the impact of program services.

6f. Technical Assistance to Other Communities. The effectiveness of the **TCs** technical assistance to other communities was rated to be mostly effective.

Ineffective 1 2 3 4 5 6 7 Effective

Interviews with TC staff and TC reports indicated numerous contacts with other communities. For example, teen members of Students Against Drunk Driving (SADD) made presentations at schools and organizations in other communities. Similarly, skits and other dramatic presentations were presented by TC users. UNM staff have been especially active in making presentations to communities and organizations describing the development of the **TCs,** the problems encountered, and the solutions developed in operating the **TCs.** In addition, many health promotion events have been sponsored by UNM TC staff.

7. Who are the primary benefactors of the TC services and activities?

The benefactors of TC services include:

1. **IHS.** The IHS provides most of the funding for the **TCs,** contract development and monitoring, and services of select health care providers including physicians, psychologists, and nurses.

2. The UNM, Center for Indian Youth Program Development (CIYPD) as the prime Contractor, has operated the **Acoma-Laguna,** Bernalillo, Canoncito, and Jemez **TCs.** In addition to its staff, the CIYPD draws on the resources of the UNM medical school including the services of students in the family medicine program, computer and storage resources.

3. The Zuni Pueblo. The Zuni Pueblo has operated a TC under contract to THS since 1986. The pueblo provides the building housing the TC and related support services.

4. **Jeffery** Pine. M.P.H. and Diane Paolazzi. Mr. Pine, and subsequently Ms. Paolazzi served as the contractor for the Santa Fe TC. Each in turn served as project director and the contractor for the Santa Fe TC.

5. Schools. The public schools in the Laguna, Bemalillo, and Canoncito, and the BIA Boarding Schools in Santa Fe provided buildings housing **TCs.** In

addition, to varying degrees, these schools coordinated activities and resources with the TCs in order to permit students to utilize the TCs.

The primary beneficiaries of the TC services are discussed in response to the next question. The primary beneficiaries were students attending the schools served by the TCs. Consistent with data reported for SBCs, the TCs served disproportionately high numbers of females. For example, in 1986, the two campuses of the Santa Fe TC served 275 students, 60 percent of the student body. The majority (64%) of the 996 visits were made by females. In 1990, the Zuni TC had approximately 1,600 visits, 70 percent of which were made by females. In 1988, the Bernalillo TC had 1,004 visits, 68 percent of which were by females.

Apart from gender, little is known about other characteristics of TC users. The report recommendations include better identification of TC users and non-users and determination of the factors that influence the decision to use TCs.

8. For which group(s) was the program most/least successful?

Since little quantitative program impact data were available, this question cannot be answered definitively. Nevertheless, there is both anecdotal data (in the form of the judgments and impressions of TC staff), and there are some utilization data that 'suggest what services were used. Examination of the services used and those not used, suggested which groups benefitted most and least from the TC program.

It is difficult to compare the services provided and the utilization of the services across the six TCs. While the TCs completed "encounter forms" whenever a teen received a service, there are few tabulations of these data. The situation is complicated by a lack of uniformity in the definition of services and of recording procedures. The contractor for four of the TCs (UNM) refused the evaluation team access to the encounter forms on grounds of possible violation of the Privacy Act (see Appendix 1).

Table 8 presents utilization data for the six Albuquerque Area TCs. The table includes utilization data derived from a study of 92 SBCs conducted by the CPO in 1987. Blank cells in Table 8 indicate the data were unavailable or had not been compiled. For example, the percentage of TC visits for preventive care/health assessment is unknown for the Jemez, Santa Fe, and Zuni TCs. It is important to remember that the data in Table 8 reflect different time periods. For example, the data for Santa Fe are for the 1986-1987 contract, while the data for the Zuni TC are for the 1989-1990 contract.

Table 8. Utilization of TCs compared to SBCs

Utilization	CPO Study			Albuquerque Area TCs					
	Low	High	Average	Acoma-Laguna	Bernalillo	Canoncito	Jemez	Santa Fe	Zuni
Percent of Student body using clinic in 1 year	24	80	56	78	63			85	
Number of clinic visits per year	1,859	4,639	3,239	633	1,133	519	391	1,605	1,660
Clink Services									
Percent of visits receiving primary care	5	70	46	24	39	33	26	87	
Percent of visits receiving reproductive health care	10	36	29	4	24	9		4	12
Percent of visits receiving preventive care-health assessment	2	13	7	36	36	19	6	21	
Percent receiving counseling/health education	1	49	21	64	72	68		8	

SOURCE: Center for Population Options, An Assessment of Six School-Based Clinics, 1989.
Bernalillo: 1988 Annual Report; Zuni: 1990 Annual Report; Santa Fe: 1987 Annual Report; Acoma-Laguna: Annual Report, 1988; Canoncito: 1989 Annual Report; Jemez: 1986 Annual Report,

Table 8 shows that the percent of the student body using the TCs ranged from 53 percent at Bernalillo to 85 percent at Santa Fe. This level of use is similar to that reported in the 92 SBCs in the 1987 CPO study (the lowest, highest and average percentages for the 92 SBCs are presented in the second, third and fourth columns of Table 8 respectively). The total number of visits to each TC ranged from 519 at Canoncito to over 1,600 at Santa Fe and Zuni.[7] The number of visits to the TCs were significantly lower than those to the SBCs. On the average, the SBCs had 3,239 visits per year. This difference in the volume of users between the TCs and SBCs is probably due to the fact that most SBCs are located in large urban schools while the TCs are located in relatively small, rural schools. For example, enrollment in grades 8-12 at the Canoncito public school is 90 students.

Separate ratings of TC program success were made for 1) primary health care, 2) reproductive health care, 3) preventive health care, and 4) counseling-health education.

[7] A visit is defined as the use of a TC service. When a student comes to the TC to receive a service (e.g., physical exam, counseling, participation in a group activity) an encounter form is completed. Each encounter is counted as one visit even if the student uses more than one service.

Primary Health Care. The success of the **TCs** in providing services to teens needing primary health care was rated to be slightly successful.

Unsuccessful 1 2 3 4 5 6 7 Successful

All the **TCs** provided primary health care services including first aid, treatment of injuries and illnesses, acute medical treatment, and general health care. The percent of TC visits for primary health care ranged from 24 percent in Acoma-Laguna to 87 percent in Santa Fe. The range in primary health care services provided by **TCs** is similar to that for **SBCs (5%-70%).** The high level of primary care dispensed by the Santa Fe TC (87%) reflects the fact that the TC served boarding schools, and was the main source of primary health care for these students.

Reproductive Health Care. The success of the **TCs** in providing services to teens needing reproductive health care was rated to be slightly successful.

Unsuccessful 1 2 3 4 5 6 7 Successful

This service category includes pregnancy testing and counseling, contraceptive prescription, dispensation and counseling, STD testing, prenatal care and general gynecology. Reproductive health care provided by the **TCs** ranged from 4 percent of visits at **Acoma-Laguna** and Santa Fe to 24 percent at Bernalillo. These usage levels are lower than those at **SBCs** which, on the average, constitute 29 percent of the visits.

Preventive Health Care. The success of the **TCs** in providing services to teens needing preventive health care was rated as moderately successful.

Unsuccessful 1 2 3 4 5 6 7 Successful

This service category includes sports physicals, immunizations, diabetes, vision, hearing and blood pressure screening, and general health assessments. Utilization of preventive health care services ranged from a low of 6 percent of visits at Santa Fe to a high of 30 percent at Bernalillo and Acoma-Laguna. These levels are higher than those at **SBCs** which averaged 7 percent of the visits.

Counseling—Health Education. The success of the TCs in providing services to teens in need of counseling-health education was rated as moderately successful.

Unsuccessful 1 2 3 4 5 6 7 Successful

This service category includes all forms of counseling (e.g., substance abuse prevention, school-interpersonal counseling), and all types of health education. Utilization of these services ranged from 8 percent of the visits at Santa Fe to 72 percent at Bernalillo. These levels of utilization are generally higher than those at the SBCs which averaged 21 percent of visits for counseling-health education.

TC staff indicated the centers have given the teens continuity and consistency in their lives that they normally wouldn't have, and provides them with options and alternatives in dealing with health and emotional challenges. According to the staff, these centers give the teens a focus in the community, and one in which they can play an important role in interacting with the various groups and leaders of the community. They further note that the spirit of cooperation engendered by these centers among the tribes, the schools, the university, the funding agencies, and the community is very empowering to all involved. The staff stressed that the overall approach of these centers is a mode of prevention or proactive efforts, rather than reactive. Their major thrust is to educate the teens regarding substance abuse, alcoholism, pregnancy, etc., and to assist them in preventing these things from happening in their own lives, and in their families. They state that a key factor in the success of this program is that it provides the teens with the opportunity to confide in someone outside of their family or tribe whom they can trust, without fear of judgment and with the knowledge that they will receive confidential assistance for their problem. It is also noted that the tribes support the TCs because they see the effectiveness of the approach of having inside and outside assistance available for the teens.

The Alcohol/Substance Abuse Prevention and Suicide Prevention programs were said to be among the most successful TC programs. IHS staff stated that there had been no deaths of teens due to drunk driving nor a completed suicide attempt in Acoma-Laguna over the last 5 years. The staff attributed this achievement to the efforts of the Acoma-Laguna TC.

In summary, the primary beneficiaries of TC services include students needing sports physicals, counseling, and substance abuse prevention services. All of the TCs were located on the school grounds (except Zuni and Jemez), and students were permitted to leave class or other activity for sports physicals. In Santa Fe, a group of students benefitting from the TCs are those in need of first aid, primary care, and treatment of chronic conditions. The

two schools served by the Santa Fe TC are boarding schools. The TC provided a range of care that was previously unavailable or difficult to access for these students.

9. How have the TCs increased knowledge and awareness of preventive health care among Indian adolescents?

The TCs were rated to have moderately increased teens knowledge and awareness of preventive health.

Decrease 1 2 3 4 5 6 7 Increase

This question would best be answered with comparisons of the knowledge and attitudes of teens who have used TC services and those who have not. Although no such data are available*, we do know that large numbers of adolescents in the communities served by the TCs have used the services. Many TC users have observed and/or participated in activities focusing on health promotion and disease prevention, such as viewing films and videotapes, developing and performing in skits and dramatic presentations before groups (both peers and adults) in their own community, and in other communities. It was the impression among TC staff that positive changes in the knowledge and attitudes of teens and others in the community are among the best achievements of the TCs.

TC reports indicated there were numerous health education presentations and activities given by professionals to students both at the TC and to elementary through high school classes, as well as throughout the community. It was not possible to assess the numbers of activities of this type since few statistics were given. Staff reports indicated that presentations were given, but did not indicate the numbers of people involved; occasionally, the numbers of presentations given were indicated. It is evident that, throughout each month, many of these types of presentations and activities were produced in the years examined, and great numbers of students and community members were repeatedly exposed to these presentations and activities.

Health education activities included presentations and demonstrations of cardio-pulmonary resuscitation (CPR) and first aid, adolescent development and general health care for all ages, sex education for high school students, promotion of motivation and self-esteem, and films regarding teen problems. Numerous discussions and presentations were held on pregnancy and parenting, fetal alcohol syndrome, pregnancy prevention, family planning,

[8] Interviews with UNM staff indicated that they have collected data on TC users but it has not been automated or analyzed.

self-examination, and the problems of peer pressure. Presentations included topics such as family violence, contraceptives, and films and discussions for elementary school children on "good" and "bad" touching.

Other TC activities included presentations on domestic violence, classes on sexually transmitted diseases, discussions regarding reproductive health, the effect of alcohol and drugs on babies, stress and coping responses, and eye care. Two innovative programs implemented by the TCs were the Checkerboard Cardiovascular Curriculum which included an intergenerational video and was taught in school classes as well as promoted in the community, and the Choices and Challenges Program which was a self-esteem and life skills program for elementary school children. These and many other presentations and activities in the health education and promotion category were found to be implemented at all the centers on a continuous basis.

It is evident that this type of activity has been highly emphasized by this project, and much effort has gone into assuring this type of information is widely disseminated to the teens and to the community as a whole.

In reviewing the monthly staff reports, it is clear that great effort was made to generate activities to promote health and prevent illness and injury. Programs like the Adventure Club took the teens on outdoor adventures that included activities for promoting health, self-esteem, and life skills. These activities included hikes, ski, wilderness, fishing, rafting trips, camping trips, a trip to the Petroglyph Park, the Natural History Museum, and the Atomic Museum, and many others. The ASAP (Alcohol and Substance Abuse Prevention) Program's innovative activity of taking teens to the emergency room in order to first-hand, and graphically observe the results of drinking and driving is, according to staff reports, one of the more effective tools in fighting the problem of alcohol and substance abuse, and preventing injury and death. The BYOBF (Be Your Own Best Friend) curriculum developed by UNM is another innovative program that has assisted many young people to come to terms with themselves and their problems in a very positive manner. According to staff reports, the Teen Theater groups under the ASAP Program has effectively provided the teens with an outlet to express their own feelings and to influence all segments of the community in regards to Alcohol and Substance Abuse.

Other activities that fall into this category include health fairs promoted and participated in by all the centers, and the Teen Health Awareness days at the various schools. These two activities included information booths, skits, films and presentations.

Workshops were presented on various subjects from substance abuse to family planning. The TC staff sponsored a Youth Camp Conference for teens from Arizona and New Mexico

on the Navajo Reservation which included workshops and the opportunity to learn outdoor skills such as canoeing and rappelling.

10. To what extent are the tribal leaders, tribal organizations, community, and parents involved in the operation and activities of the Center?

The involvement of tribal leaders, parents, and others in the community with TC activities was rated to be moderately high.

Not involved 1 2 3 4 5 6 7 Involved

The involvement of the different groups cited varied from TC to TC. For example, tribal officials were more involved with the two TCs that operated in tribal facilities (Jemez and Zuni) than the school-based TCs. For example, the Governor of the Jemez Pueblo reviewed and approved numerous requests for tribal resources; however, even in the other communities where the TCs were located in school facilities, TC staff stated that tribal officials were aware of the TCs and supportive of their goals and activities.

There seems to have been systematic efforts to involve community leaders in center activities. The following include efforts of the TCs to involve tribal and other community leaders. At Zuni, leaders were reportedly sympathetic to the idea of youngsters having their own confidential health service, understanding that "confidentiality is the sine qua non for adolescent," and that the large IHS regional hospital at nearby Shiprock is a highly public place. On the other hand, some Zuni parents oppose the reproductive services offered (see below), but the teen center staffs response to this opposition has been, very effectively, to broaden the comprehensiveness of services to become more of a community center than a condom distribution center (with it still is). One of the probable reasons for Zuni's success is that a local, highly influential member of the community and school board member works closely with their staff.

On the other hand, there seem to be relatively little communication and coordination between the TCs and other institutions and resources in the community. To some degree, the partial isolation of the TCs reflects an attempt by TC staff to be seen as an ally of the teens as opposed to a tool of institutions often perceived (by teens) as critical or hostile (e.g., police, judiciary, certain school officials). Consequently, there was little communication between the TCs and these groups.

The relationship between the TCs and the schools is especially important as schools are the other institution that has the most contact with and impact on youth. The nature of this relationship is complex, and there was considerable variation among the TCs on this domain. For example, the staff at the Santa Fe TC complained of poor communication with the principal of one of the schools, noting that he canceled numerous meetings with the TC director. In contrast, the TC stated their communication and staff coordination with teachers was good.

IHS staff in the Acoma-Laguna Service Unit stated that there was good communication-coordination between the TC and the schools. Nevertheless, there is a potential fundamental conflict between TC and school staff. Compared to students in other developed countries, students in the United States often spend fewer hours receiving instruction and in doing "homework" (37). Thus, it is not surprising that school teachers and administrators often complain that students have too many accepted outside distractions that compete for precious instructional time. To the extent that students can use TC services during the school hours, the TC becomes more convenient. On the other hand, this convenience to the student-TC user often is in conflict with instructional time. To resolve this dilemma, teachers, administrators, and TC staff must work together to minimize time out of school for TC users and to maximize the educational benefits of TC use.

In 1988, a series of newspaper articles reported a community dispute on whether contraceptives should be distributed at the public school center. First, the school board decided to stop distribution. Later, a split in the board developed and reflected (1) a general community openness to contraceptive distribution versus (2) the board's political sensitivities. The final decision banned the services, although the community at-large was open to them. In 1989, the board did not renew the school superintendent's contract, in part for his role in the dispute.

Parental involvement in the TC operation is a challenge for TCs much the same as it is for schools. Often a small number of parents become active but the majority do not. In general TCs have had success in using "potlucks," dances, movies, and other social activities as a way to get parents, teens, and other community members to participate in activities after school hours. The use of these types of after-school activities seems to be a critical component of successful marketing, e.g., attracting people to attend events which can then elicit participation and involvement in the TC program.

Almost all centers have experienced some problems associated with reproductive health services, e.g., sexuality, STDs, pregnancy tests and counseling, prenatal examinations and care, contraception education and distribution, birthing, and parenting.

At Zuni, among some community adults, the TC is derisively called the "pill factory." Some teen users say their parents tell them to avoid the center and, therefore, come to the center without their parents' knowledge. Moreover, according to the staff, the availability of reproductive health services is a major motivator for teen use.

Despite its closing, former Jemez TC staff feel that community acceptance of the TC was positive. There were no comments from parents about "sex and drugs." Parents were both involved in referring teens and in follow-up interviews as well as in permitting psychological counseling in their homes, which they felt to be more confidential than sessions at the tribal building where the teen center was located.

11. If the absentee and dropout rates are decreased or shown to be decreasing, can the decrease be attributed to better access to counseling and/or health care?

No evidence was found to show that the TCs have influenced school absenteeism or dropout rates; therefore, no ratings were made on this question. The TCs may have had an influence; however, statistics were not available.

The in-depth study of six SBCs conducted by the CPO revealed no effect on unexcused absences. It may be unrealistic to expect the TCs with their emphasis on health promotion and disease prevention to have much of an impact on school attendance and dropout rates.

12. Are there significant differences or decreases in the type of teen arrests to indicate the influence of the TC activities as a positive contributing factor?

No evidence was found that the TCs influenced teen arrest rates; therefore, no ratings were made with respect to this question. As with school attendance, it may be unrealistic to expect the TCs to decrease delinquent behaviors that subject teens to arrest. On the other hand, the CPO study of six SBCs indicated a significant reduction in alcohol consumption by teens at 3 of the 4 sites where alcohol consumption was assessed. To the extent that alcohol consumption is associated with delinquent behavior, there is some basis for the hypothesis that TCs can mediate a decrease in teen arrest rates. All the Albuquerque Area TCs emphasized counseling and alcohol abuse prevention activities such as SADD groups, educational films, and observation of emergency rooms that treat many victims of alcohol-related accidents. Unfortunately, there has been no attempt to measure the effect of TCs on alcohol consumption or on arrest rates.

13. Is the community support of the TC programs a significant factor in addressing specific outcomes through sponsored programs such as pregnant teens remaining in schools, smokeless tobacco reduction, etc.?

Community support was rated to be very significant in addressing specific TC program outcomes.

Insignificant ____ 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ Significant

There is too little statistical evidence of TC impact to permit the assessment of the contribution of community support to the achievement of specific program outcomes. Nevertheless, interviews with TC staff suggested that community support or lack of support can be critical to program success. For example, the Santa Fe Annual Reports indicated that teachers were supportive of the TC but administrators were not. Evidence of this lack of support was the location of the TC in a building lacking a bathroom, and the repeated failure of school administrators to meet with TC staff. Ultimately, the Santa Fe TC ceased operation. In contrast, other TCs were actively involved and cooperated with school programs and activities, and with tribal programs and activities as described in response to Question 10.

14. What are the clinical categories of TC visits?

While there is considerable variation across the six TCs in the distribution of services provided, there is a common core of services that all TCs provide. Table 9 summarizes the clinical categories of visits to the six TCs. Because of variations in the TC reporting systems and the data were obtained from different years, Table 9 serves as a more effective description of the relative distribution of services rather than an exact measure of each specific service category. Blank cells in Table 9 indicate missing or insufficient information, and should not be interpreted to mean that a particular service was not provided at a TC.

Table 9. Summary of TC Utilization

Service	Acoma-Laguna	Bernalillo	Canoncito	Jemez	Santa Fe	Zuni
Total visits	528	1,130	519	391	1,463	1,660
Sports Physical injury	408 (77%)	341 (30%)	99 (19%)		86 (6%)	341 (21%)
First Aid/G-Med	46 (9%)	103 (9%)		102 (26%)	756 (52%)	
Family Planning	2	68 (6%)	47 (9%)		69 (5%)	194 (12%)
Birth Control Dispensed		100 (9%)				
Pregnancy Tests		42 (4%)			8 (1%)	
Pregnancy Counseling		48 (4%)				
STDs	1	12 (1%)				
Counseling	114 (20%)	339 (30%)	19 (4%)		112 (8%)	
Alcohol Counseling/ Treatment	58 (11%)	208 (18%)		11 (4%)		
Drugs	7 (1%)	55 (5%)				
Other	77 (15%)	245 (22%)		274 (70%)	432 (30%)	1,152 (68%)
Social Problems	85 (6%)		229 (44%)			
Suicide/Depression	30 (6%)		105 (20%)			

SOURCE: TC Monthly and Annual Reports, various years.

IHS staff at the Acoma-Laguna Service Unit observed that in the early planning stages, the TC focused on providing primary health care services. These informants stated that educational and recreational activities, while helpful, had been given too much emphasis at the expense of a medical-clinical approach. In this vein, it was suggested that the physician's assistants needed more supervision by a physician, that clinical review and quality assurance should be expanded, and that communication and coordination between the TC and the IHS hospital should be improved. In general, the IHS informants seemed to prefer a TC model that emphasized provision of more direct health care services and less education and health promotion activities. The approach of the UNM staff, however, has been a comprehensive one, which stresses treatment of the whole person.

One of the most frequently used services is counseling, especially if the categories "counseling," "alcohol counseling/treatment," and "social problems" are combined. Counseling ranged from 30 percent of the visits at Bernalillo to 8 percent at Santa Fe. The amount of counseling was not reported for the Jemez or Zuni TCs. While data was missing for one or more months, there were detailed records on mental health/suicide prevention counseling at three TCs (Acoma-Laguna, Bernalillo, and Canoncito).

Suicide prevention activities were prominent through many of the reports available from all centers. In addition, it is evident, from references in the staff monthly reports, that there were numerous suicide prevention activities in connection with the ASAP program (Alcohol and Substance Abuse Prevention) that were not specifically listed as suicide prevention events.

Another frequently-used popular service was sports physicals. This category ranged from 77 percent of the visits to the Acoma-Laguna TC to a low of 6 percent at Santa Fe. Providing sports physicals represented an important way for the TCs to become associated with an activity valued by adolescents in the community, and was a good way to get males to visit the center.

The "other services" category is large, ranging from 70 percent in Jemez to 15 percent in Acoma-Laguna. These high percentages reflect the incompatibility of the reporting systems and the lack of detailed data rather than the absence of services. For example, we know that there were 391 visits to the Jemez TC in 1986, and that 102 visits (26%) received first aid or general medical services; and 15 (4%) received alcohol counseling/treatment. The exact services received by the remaining 274 visits (70%) was not reported.

As with the mental health data, some detailed records were available on the number of clinic days provided by three of the TCs. Table 10 summarizes the number of clinic days provided over the 4 year period 1987-1990. These data were culled from available reports; since some TC reports were missing, it is possible that Table 10 may not include all clinics that were conducted from 1987-1990.

Table 10. Number of Clinic Days Provided by TC

Year	Acoma-Laguna	Bernalillo	Canoncito
1987	83	94	56
1988	76	55	69
1989	60	92	47
1990	57	100	57
Total	276	341	229

It is important to note that the data in Table 10 represents clinic days rather than numbers of clients served. The average number of teens seen per clinic day is unknown.

15. Do these categories indicate an increase, decrease, or difference in the disease entities of youth and teens?

No qualitative data were found relative to the influence of the **TCs** on morbidity and mortality rates, and there was insufficient qualitative data to permit the use of rating scales. Because of the small numbers of teens in the communities served and the sparse rate data available, it would be difficult to demonstrate changes in rates attributable to the operation of the **TCs.** Interviews with TC staff revealed anecdotal evidence of individual teens who were strongly affected by participation in TC activities. For example, staff at each TC could identify individual teens who gradually **"caught fire"** and became a leader in some activity such as SADD. Other teens, aware of depressed friends, actively participated in suicide prevention programs and activities.

While data on the effects of **SBCs** is sparse and encouraging, few dramatic achievements have been documented. For example, the CPO study of six **SBCs** showed the **SBCs:**

- had no effect on emergency room visits or hospitalization
- had no effect on absenteeism from school
- were associated with a decrease in the frequency of alcohol consumption
- had no effect on illicit drug use
- were associated with a decrease in the percentage of sexually active teens, and a delay in the ages of first intercourse
- were associated with a small increase in contraceptive use, however had little effect on fertility rates.

The teen fertility data reported for Jemez are consistent with the hypothesis that the pregnancy prevention component of TC activities reduced teen pregnancy. Improved recording and reporting will be required before more effects can be documented.

IV. CONCLUSIONS AND RECOMMENDATIONS

1. The IHS should continue to fund Teen Centers (TCs) in the Albuquerque Area.

There is a clear need for the services provided by the TCs, the existing programs are viable, and the services are being used. The average cost of operation of a TC is $48,196 per year or $38,141 per year depending on the contractor. **A TC** probably costs less to operate for one year than the costs associated with the treatment of one teenager who contracts **AIDS.**

2. The IHS should fund TCs in other Areas, but only on an experimental basis as demonstration projects.

These demonstration TC programs should incorporate sound evaluation methods and should utilize the model developed in this evaluation so that the impact and cost-efficiency of the TC model can be better established.

3. Examination of six years of TC operation reveal that IHS and the TC contractors are performing at a satisfactory level. The following activities and approaches should be replicated in new TCs.

- Support from high levels in the Area Office. The TCs benefitted from the interest and support of the IHS Area Director, Chief Medical Officer, and the Maternal and Child Health Division (MCHD). Without the commitment and leadership provided by these Area Office administrators, the TCs would not have developed. Critical commitments and decisions made by Area Office administrators include: 1) insuring that the TC procurement process was successful, from development of the request for contract to actual contract award, 2) allocating scarce funding and other resources for a new, unbudgeted program, and 3) assigning scarce health care professionals as Project Officers to monitor the performance of the TC contractors.

- Contract out the oneration of TCs to tribes or communitv-based organizations. This facilitates community "ownership" of and involvement in the programs, and is consistent with the IHS goal of Indian self-determination.

. Team with other funding sources. In some situations, states, counties, cities, and other funding sources can help defray TC costs. Matching state funding was obtained for the Bernalillo TC. Similar matching funds should be solicited wherever possible.

- Expand on the model provided in this study by creating a TC developers handbook. The handbook should include step-by-step checklists of activities required to plan, start, and keep a TC going. Also the handbook should contain example of such items as measurable objectives, job descriptions, timesheets, staff performance evaluation forms, standardized reporting forms and procedures, and flow charts illustrating the steps to be completed for common activities. In summary, the handbook should contain practical guidance and examples so that each community that decides to develop a TC is not forced to "reinvent the wheel."

. Procure TC services by three year contracts. This will help TCs to recruit and retain quality staff, and will facilitate planning. TC contracts generally have a one year period of performance. TC managers almost universally cited the uncertainty of year-to-year funding as the source of frustration and as a barrier to efficient planning and management.

4. The **following changes in TC programming should be instituted:**

- Make contract awards only to offerors who submit technically acceptable proposals and who provide evidence of successful operation. Communities that fail to prepare satisfactory proposals probably cannot successfully develop and manage a TC. As indicated below, the proposal should include the results of a formal needs assessment or should include plans to conduct such an assessment. Also, the Request for Proposal should require that the proposal specify how the offeror plans to accomplish each of the tasks in the Statement of Work.

. Reauire that TC proposals include measurable objectives. This requirement will help TC contractors plan and evaluate their own performance and the impact of the TC on teen health. The actual objectives and the contractor's success in achieving these objectives will help justify which TCs should be funded.

- Develop standard reporting forms. All TCs should use the same reporting definitions and procedures; such procedures will greatly facilitate evaluation of each TC's performance. The problem of collecting and analyzing data to document TC operations has been confronted by more than 100 SBCs that have been in operation over the last 20 years. The IHS should purchase and/or adapt an automated reporting system for its TCs, from one of the available automated SBC information systems.

- Develop a standard evaluation form and procedures to guide IHS Project Officers' review of TC onerations. A standard evaluation form and procedures can guide the TC's internal quality assurance program. Include in the standard evaluation an administrative review of the TC contractor such as use of signed timesheets, position descriptions, and employee performance reviews.

- Provide technical assistance for the evaluation of TC impact. Most TC contractors will probably lack the technical expertise required for evaluation of the TCs, and will have a strong bias toward positive findings. Technical assistance should be provided at the initial TC planning stages so that appropriate baseline and comparison data can be collected.

  Specification of data related to program evaluation should be done in conjunction with the implementation of a standardized, automated reporting system recommended above. The data to be collected should include the amount of alcohol consumption, age at which sexual activity is initiated, contraceptive use by sexually active teens, and pregnancy rate.

- Determine the return on investment. Sound data on program impact (e.g., number of pregnancies prevented, STDs prevented, decrease in substance abuse) can be compared to the amount awarded to make the determination.

5. Problems to be solved and barriers to overcome.

- Prepare for negative publicity and opposition before it happens. TCs deal with controversial and emotionally charged issues such as teen sexual behavior and pregnancy. If TC funding is continued or expanded, IHS should have a "disaster recovery" plan that deals with many levels of institutions including the executive branch (i.e., OMB, BIA, DHHS, PHS), Congress, tribal leaders, school officials, parents and teens. Because of the controversial nature of the issues, it is impractical to get "everyone" to sign off, but the key to success

involves presentation of the facts of the crisis in adolescent health and the TC model so that key supporters are not surprised should heated controversy occur.

6. TC **funding has been variable, uncertain, and unequal.**

- The funding for the first few years of TC operation (1983-1985) is unclear. Apparently, the **TCs** were financed through purchase orders and IHS Contract Health Service (CHS) purchases. While the Acoma-Laguna TC was established in 1983, the first recorded contract was with the **UNM** for the operation of the Bernalillo TC in 1985.

  Funding for the **TCs** has fluctuated greatly over time. For example, the contract for the Bernalillo TC increased substantially in 1989 and, in 1990, was reduced by more than 50 percent. The Zuni TC has experienced less variation in funding; the contract award increased 30 percent in 1987, and decreased 7 percent the. following year.

  The largest contract in any one year was for $173,934 awarded to UNM in 1989 for operating four **TCs** (Acoma-Laguna, Canoncito, Bernalillo, and Jemez). The smallest contract was in the amount of $25,000 to the UNM in 1985 for operation of the Jemez TC. From 19851990, the total amount of TC contract awards was slightly under $1 million ($989,930). Since the contract award data are incomplete, it is likely that the actual funding exceeds $1 million.

  The four **TCs** operated under contract to UNM have received disproportionate amounts of funding. The funding for the Acoma-Laguna, Canoncito, Bernalillo, and Jemez **TCs** totals $722,945. The total funding for the two **TCs** not operated by UNM (Santa Fe and Zuni) is $266,985. When these figures are normalized by computing the average cost per TC per year, 1985-1990, the UNM average cost ($48,196) is significantly higher than the average of the other **TCs** ($38,141). The explanation for these differences are not clear, but appears not to be a function of the number of visits (see section on cost-efficiency below).

7. TCs have been cost-efficient; however, they perform at different levels of efficiency.

- The cost per TC visit was computed as a measure of cost-efficiency. This measure was computed by dividing the amount of contract award by the total number of visits or encounters reported in TC documents. There is large variation in the cost per visit both between **TCs** and within most **TCs** over time.

The cost per visit ranges from a low of $16.82 at Zuni in 1986 to a high of $124.43 in Jemez. The average cost per visit for the TCs operated under contract to UNM was $51.57; the average for the other TCs was $39.74. The differences give rise to questions of equity in funding across TCs, and the quality and quantity of services provided by the TCs. It appears that the Zuni and Santa Fe TCs have been able to produce significantly more encounters per dollar than the other TCs. The rationale for the variation is unclear. This evaluation did not focus on TC cost-efficiency, and there are so many differences across TCs that it is impossible to clearly identify specific factors associated with variations in costs.

Appendix 1
Letters from Center for Indian Youth Program Development

The University of New Mexico

School of Medicine
Department of Pediatrics
Albuquerque, NM 87131
(505) 277-5551

November 14, 1990

Walter Hillabrant, Ph.D.
Project Director
Support Services, Inc.
8609 Second Avenue, Suite 506
Silver Spring, Marylan'd 20910-3362

Dear Dr. Hillabrant:

In response to your request for information in preparation for the evaluation of Teen Centers in the Albuquerque Area, we can assist only with those projects with which we have been associated. Those projects are Laguna-Acoma, Canoncito, and Bernalillo.

The Laguna-Acoma Teen Center model was developed by us beginning in 1983 through the efforts of a group of people in the Laguna-Acoma area in partnership with the University of New Mexico. This "model" was subsequently used to help develop the programs at Bernalillo and at Canoncito. It is important to us to know that the model we have developed and the experience we have gained from it, will be recognized and cited where it is appropriate. UNM

we feel it would be appropriate to schedule your site visits to our centers: and program during times that would be convenient to our schedules since we' have other projects with which we are involved in here at the Center. In addition, staff providing services at the centers are busiest during the school day and have little time for meetings, visits, etc.

We have provided materials to Kevin during his visit with us to pass on to you. We hope you have seen these. We will also be meeting with Elizabeth Zankel during the week of November 26. I'm sure that we wi 11 be communicating with you more as the evaluation progresses.

Sincerely yours,

Ken Hunt

'Ken Hunt, Associate Director
Center for Indian Youth Program Development

cc: Sally Davis, Director, CIYPD

The University of New Mexico

School of Medicine
Department of Pediatrics
Albuquerque, NM 87131-5311
(505) 277-5551

June 10. 1991

Walter Hillabrant, Ph.D.
Project Director
Support Services, Inc.
Remote Processing Management
Native American Resources
8609 Second Avenue, Suite 506
Silver Spring, MD 209 lo-3362

Dear Mr. Hillabrant,

I would like to make you aware of the courteous and professional approach to the evaluations of the Laguna-Acoma, Canoncito, and Bemalillo Teen Centers taken by Dr. Norma Millanovich and Jean Meltesen. Dr. Milanovich was very careful to document and clarify each point made during the interviews with Ken Hunt and myself. She made an obvious effort to understand the "big picture" and the underlying philosophy of the program. Although there were numerous visits to pick up and return boxes of reports, it was done with the least interruption possible. I feel Dr. Millanovich and Ms. Meltesen made every effort to collect as much information as possible given the budgetary constraints. I am looking forward to their analysis and report as I am sure it will be helpful to us as well as to others.

I do have some major concerns regarding the evaluation of the Jemez Teen Center. We were not interviewed but we understand that a number of people were, including several disgruntled former employees and one individual who had no connection with the Teen Center at all. I understand that no community members, parents, or students (clients) were interviewed. If this is true, it is highly possible that a very biased picture of the center will emerge. Since Ken and I know the history of the Jemez Teen Center it seems important to include some of this information in the report. It also seems extremely important to include the opinions of

consumers and other community members. I think that there was not adequate time spent on this component of the total evaluation to get a true picture of the operation of the Jemez Teen Center.

We have not heard from the IHS attorney regarding approval to release the registration and encounter forms. This would be a valuable quantitative contribution to the evaluation.

Sincerely,

Sally Davis

Sally Davis, Ph.D., Director

Ken Hunt

Ken Hunt, Associate Director
Center for Indian Youth Program Development

SD:KH:va

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GLOSSARY

Access: Potential and actual entry of a population into the health care delivery system. Elements of access include availability, affordability, and approachability.

Accidental injury: An injury that is not self-inflicted or caused by maltreatment or other violence.

Adolescence: Definitions of adolescence vary, and many observers agree that a definition based on age alone is not sufficient. Adolescence typically takes place during the second decade of life, and is initiated by puberty, although physical and other changes occur (i.e., height, weight, head size, facial structure, facial expression, and cognitive abilities). As used by the Office of Technology Assessment, adolescence most often refers to the period of life from ages 10-18. See ***early adolescence, middle adolescence, lute adolescence, younger adolescents, older adolescents.***

Adolescent health: Narrow definitions of adolescent health might be the absence of physical disease and disability and the absence of engagement in health-compromising behaviors that lead to the so-called "new ***morbidities.***" A broader definition would also include positive components of health (e.g., social competence); health and well-being from the perspectives of adolescents themselves (e.g., perceived quality of life). A fully realized view of adolescent health would also consider the impact of social (e.g., families, schools, communities, policies) and physical (e.g., fluoridation, automobile and highway design and construction) influences on health and would be sensitive to developmental changes that occur during adolescence.

Age **of majority:** The age of which by law a person is entitled to the management of his or her own affairs and to the enjoyment of civic rights. Currently, the age of majority is set at age 18 in every state but Alaska, Nebraska, and Wyoming where the age is 19.

AIDS (acquired immunodeficiency syndrome): A disease caused by ***human immunodeficiency virus (HIV)*** and characterized by a deficiency of the immune system. The primary defect in AIDS is an acquired, persistent, quantitative functional depression within the T4 subset of lymphocytes. This depression often leads to infections caused by micro-organisms that usually do not produce infections in individuals with normal immunity. HIV infection can be transmitted from one infected individual to another by means that include sharing of a contaminated intravenous needle and engaging in unprotected sexual intercourse (i.e., intercourse without the use of condoms).

American Indians add Alaska Natives: See *Indian.*

"At risk": A phrase used to describe an adolescent in an environment, having an existing health problem, or exhibiting health problems, or exhibiting behavior, that may result in a poor ***health outcome.***

Base rate: The ***prevalence*** or ***incidence*** of a problem in a population.

Behavioral problems: Behavior that disturbs or harms the adolescent or others. Includes the mental health problems termed behavior disorders (e.g., attention deficit disorder, ***conduct disorder). See problem behaviors.***

Cognitive skills: Specific skills relevant to higher order reasoning and critical thinking. Often part of ***life-skills training*** programs.

CIYPD: Center for Indian Youth Program Development, part of the Pediatrics Department, University of New Mexico Medical School. Has managed four Albuquerque Area Teen Centers: **Acoma-Laguna,** Bernalillo, Canoncito, and **Jemez.**

Common law: As distinguished from statutory law created by a legislature, the body of principles and rules of action which derive their authority solely from long-standing usages and customs (in particular, **Anglo-**American usages and customs) or from the judgments and decrees of the courts recognizing, affirming, and enforcing such usages and customs.

Competence (to make health care decisions): Having **sufficient** knowledge, judgment, or skill to make health care decisions. The legal concept of competency is central to existing laws governing health care decisionmaking with respect to minors, and the ***parental consent requirements*** is partially an outgrowth of the presumption that minors are incompetent to make health care decisions.

Confidentiality (of the physician/patient relationship): The state or quality of being confidential, that is intended to be held in **confidence** or kept secret. Courts and legislatures have established a **physician-**patient privilege to protect the confidentiality of communications between physicians and their parents and have established similar privileges to ensure the confidentiality of communications between other types of health care providers and their patients or clients. By and large, the confidentiality of the relationship between health service providers and minors and the disclosure of confidential information by health service providers to the parents of minors or other third parties are not addressed in case or statuary law. See also ***parental consent requirement*** and ***parental notification.***

Consent: See ***informed consent, parental consent requirement.***

CPO: Center for Population Options. A non-profit, educational foundation located in Alexandria, Virginia that has conducted several studies of School-Based Centers **(SBCs).**

Crisis intervention services: A not well-defined set of mental health services that can include crisis telephone **lines** (i.e., hot lines), emergency outpatient services, and a range of crisis-oriented outreach services such as home-based care and mobile crisis teams.

Culturally competent: A set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations. A culturally competent system of care acknowledges and incorporates, at all levels, the importance of culture, the assessment of cross-cultural relations, vigilance towards the dynamics that result from cultural differences, the expansion of cultural knowledge, and the adaptation of services to meet culturally unique needs. See culture.

Culture: Implies the integrated pattern of human behavior that includes thoughts, communications, actions, customs, beliefs, values, and institutions of racial, ethnic, religious or social group.

Death rate: The number of deaths per some portion of a population, usually 100,000 individuals.

Decisionmaking skills: Skills relevant to the ability to make rational, health-promoting decisions about one's fife. Often a part of ***life-skills training*** interventions.

Delinquent behavior: Includes two types of acts: 1) acts committed by minors that would be considered crimes if committed by an adult, and 2) status offenses (i.e., acts that are offenses solely because they are committed by a juvenile, such as running away from home, truancy). See ***minor offenses*** and serious ***offenses.***

Designated driver (programs): The practice of a group designating a person in the group to not drink alcohol and to be the driver for others who may be drinking beverage alcohol.

Development: A process of growth and differentiation by successive changes. In humans, **includes** ***physiological*** development; cognitive development (increasing ability to think critically and engage in higher order reasoning); ego development (qualitatively different psychosocial stages, including **internalization** of the rules of social intercourse, increasing cognitive complexity and tolerance of ambiguity, and growing objective); and moral development (changes in the ability to recognize and reason about moral dilemmas and to make choices based on moral principles and reasoning).

Developmentally appropriate: Health promotion, prevention, and treatment services and environments designed so that they tit the emotional, behavioral/experiential, and intellectual levels of the individual who is to benefit from the service. Because of the asynchronous development within even individual adolescents (as well as individuals in other age categories), designing programs so that they are developmentally appropriate is a distinct challenge.

Diagnosable mental disorders: Disorders included in the American Psychiatric Association's ***Diagnostic and Statistical Manual of Mental Disorders,*** 3rd ed., revised.

Disability: A term used to denote the presence of one or more functional limitations. A person with a disability has a limited ability or an inability to perform one or more basic (daily) life functions(e.g., walking) at a level considered "typical".

Disease: Any deviation from or interruption of the normal structure of function of any part, organ, or system (or combination thereof) of the body that is manifested by a characteristic set of symptoms and signs and whose etiology, pathology, and prognosis may be known or unknown.

Dropout rate: School dropout rates can be defined in several ways. **As** defined in this report, the dropout rate is the **status dropout rate,** or the proportion of a particular group of individuals (usually an age cohort) who are not enrolled in school and have not finished high school at a particular point in time. Compare ***graduation rate.***

Early adolescence: A period encompassing the profound physical and social changes that occur with ***puberty,*** as maturation begins and social interactions become increasingly **focussed** on sex (e.g., on members of

the opposite sex). Typically takes place from ages 10-14. Compare ***middle adolescence, late adolescence, younger adolescents, older adolescents.***

Early **intervention:** Treatment services delivered before a problem becomes serious and/or chronic.

Educationally based **preventive interventions:** Preventive interventions that rely primarily on educating the target group. See ***health education. See health protection.***

Emotional problems: The mental health problems exhibited in the form of emotional distress (e.g., ***anxiety*** and ***depressive disorders);*** may include ***subjective distress.*** Compare ***behavioral problems, physical problems.***

Evaluability Assessment (EA): A preliminary investigation conducted to determine if a program is sufficiently defined to justify a formal evaluation.

Family planning: A range of services intended to help individuals plan when to have children, from counseling concerning the advisability of initiating sexual intercourse to the provision of contraceptive methods.

Family planning programs authorized by **Title X of the Public** Health Service Act: Title X, established by the Family Planning Services and Population Research Act of 1970, funds public or private nonprofit entities that operate voluntary family planning projects; funds training for personnel to improve the delivery of family planning services; promotes service delivery improvement through research; and develops and disseminates information on family planning. Contraceptives may be distributed without parental consent or notification, but the use of Title X funds for abortion as a method of family planning has been prohibited by statute and regulations. Low-income individuals are targeted as a priority group for receiving services. Although projects funded by Title X do not focus exclusively on adolescents, they are required to offer a broad range of family planning services to all who want them, including adolescents.

Freestanding (comprehensive) health **services centers (for adolescents):** Those centers not located within a school, ***health maintenance organization,*** hospital, or other facility.

Gonorrhea: A sexually transmitted disease caused by the bacterial agent ***Neisseria gonorrhoea.*** Gonorrhea can lead to infertility, premature delivery, acute arthritis, and disseminated gonococcal infection.

Graduation rate: Graduation rates are calculated by dividing the number of high school graduates by the ninth grade enrollment 4 years earlier. Graduation rates by states are calculated by the U.S. Department of Education for public school graduates and are not available by state. Compare ***dropout rate.***

Health education: Activities aimed at influencing behavior in such a way as it is hoped will assist in the promotion of health and the prevention of disease.

Health outcome: A measure of the ***effectiveness*** of preventive or treatment health services, typically in terms of patient health status, but sometimes in terms of patient satisfaction. Attributing changes in outcomes to health services requires distinguishing the effects of care from the effects of the many other factors that influence patients' health and satisfaction.

Health promotion: Most broadly, a philosophy of health or a set of activities that takes as its aim the promotion of health, not just the prevention of disease. Sometimes narrowly defined as the set of prevention efforts aimed at changing individual behavior, compare ***health education, health protection,*** and ***preventive services.***

Health protection: Strategies for health promotion and disease prevention related to environmental or regulatory measures that confer protection on large population groups.

Health status goals (of the report "Healthy People 2000"): Goals defined in terms of a reduction in death, disease, or disability (e.g., "Reduce deaths among youth aged 15 through 24 caused by motor vehicle crashes to no more than 33 per 100,000 people" [Healthy People Objective No. 9.3b]).

Hormone: A chemical substance that is released into the circulatory system by a gland that has a specific regulatory effect on another organ; functions regulated include metabolism, growth and the development of secondary sex characteristics (e.g., breasts, facial hair).

HPDP: Health Promotion/Prevention.

Human immunodeficiency virus (HIV): The virus that causes ***AIDS.***

Incidence: In health epidemiology, the measure of the number of new cases of a particular disease or condition occurring in a population during a given period of time. The definition of incidence differs when used in juvenile justice statistics (see Glossary, Vol. II).

Indian: In this Report, refers to American Indians in the contingious United States, and Indians, Aleuts, and Eskimos in Alaska.

Indian tribes: Any Indian tribe, band, nation, group, pueblo, rancheria, or community, including any Alaska Native village, group, or regional or village corporation. A tribe may be federally-recognized, state-recognized, or self-recognized and/or federally- terminated. In the context of the Federal/Indian relationship, tribes must be federally-recognized in order to be eligible for the special programs and services provided by the United States to Indians because of their status as Indians. See ***Indian.***

Informed consent: A person's agreement to allow something to happen (e.g., a medical procedure) that is based on a full disclosure of facts needed to make-the decision intelligently. Informed consent is also the name for a general principle of law that a physician'has a duty to disclose information about the risks of a proposed treatment to a patient so that the patient may intelligently exercise his or her judgment about whether to undergo that treatment.

Inpatient care: Care that includes an overnight stay in a medical facility.

IHS: Indian Health Service, an independent agency of the U.S. Department of Health and Human Services.

Juvenile justice facility: Includes: **1) juvenile correctional facilities (facilities that hold** juveniles after adjudication and are for the purpose of long-term commitment or placement for supervision and

treatment); and 2) **juvenile detention facilities** (facilities that are usually called juvenile detention center or juvenile halls, and hold juveniles pending adjudication or after adjudication, and awaiting disposition or placement). Both juvenile correctional and juvenile detention facilities can be public (i.e., under the direct administration and operational control of a State or local government and staffed by governmental employees) or private (i.e., either profitmaking or non-profit and subject to governmental licensing but under the direct administration and operational control of private enterprise; private facilities may receive substantial public funding in addition to support from private sources).

Juvenile **justice** system: The juvenile justice system includes law enforcement officers and others who refer delinquent and maltreated juveniles to the courts, juvenile courts which apply sanctions for delinquent offenses and oversee the execution of child protective services, juvenile detention and correctional facilities, and, less frequently, agencies that provide ***protective services*** and care (e.g., foster care) for juvenile victims of abuse and neglect. The latter agencies intersect with the child welfare or ***social services system. See delinquent behavior, juvenile justice facilities.***

Late* adolescence:** Occurs for those individuals, typically ages 18 to the **mid-20s,** who, because of educational goals or other social factors, delay their entry into adult roles, Compare ***early adolescence, middle adolescence, younger adolescents, and ***older adolescents.***

Legal access: In this Report, used to refer to aspects of access that have to do with ***consent*** and ***confidentiality.***

Life-skills training: The formal teaching of the requisite skills for surviving, living with others, and succeeding in a complex society. Life-skills training interventions emphasize the teaching of ***social competence, cognitive skills,*** and ***decisionmaking skills.***

Limitation (in a life activity): As defined by the DHHS National Center **for Health Statistics for the *National Health Interview Survey,*** refers to what a person is generally capable of and involved in doing (e.g., for those ages 5 to 17 years of age, attending school; for those under age 5, ordinary play; for those ages **18** to 69, either working for pay or keeping house).

Medicaid: A federally-aided, state-administered program that provides medical assistance for low-income people meeting specific income and family structure requirements.

Menstruation: The periodic physiological discharge of blood and mucous membrane from the uterus, recurring at approximately 4-week intervals throughout the reproductive period of the human female (i.e, from puberty to menopause).

Middle adolescence: Typically, a time of increasing independence. Generally takes place during the period from ages 15 through 17. For those adolescents who do not go on to (and remain in) college, age 17 or completion of high school marks the end of adolescence, in social terms. Compare ***early adolescence, late adolescence, younger adolescents, older adolescents.***

Minor: A **person who has not reached the age of majority, either age** 18 **or 19,** depending on the state. Currently, the age of majority is set at age 18 in every state but Alaska, Nebraska, and Wyoming, where the age is 19.

Minor offenses: Federal Bureau of Investigation Part II offenses, which include drug abuse violations, weapons violations, assaults without weapons, disorderly conduct, involvement with stolen property, driving under the influence of alcohol or other drugs, and ***status offenses***

Morbidity: The condition of being diseased or otherwise afflicted with an unhealthy condition.

Murder and non-negligent manslaughter: The willful (non-negligent) killing of one human being by another. Deaths caused by negligence, attempts to kill, assaults to kill, suicides, accidental deaths, and justifiable homicides, are excluded. Justifiable homicides are limited to: 1) the killing of a felon by a law enforcement officer in the line of duty, and 2) the killing of a felon by a private citizen.

Older adolescents: As defined in most DHHS National Center for Health Statistics data analysis, adolescents ages **15** to 19.

"One-stop shopping": A setting for health care services that delivers an entire set of comprehensive health (and, often, related) services. Currently an ideal rather than an actuality.

Parental consent requirement (applicable to health care of minors): As used in this Report, a legal requirement, grounded in common law, that a parent or other guardian of minor child must give prior consent to the delivery of medical or surgical care to that child. Courts and legislatures have carved out a variety of exceptions to this requirement and have sometimes replaced the parental consent requirement with a ***parental notification requirement.***

Parental notification requirement (applicable to health care of minors): A requirement that the parents of minors be notified of the decisions of their minor children to obtain health services. **Compare** ***parental consent requirement.***

Physiological: Having to do with organs, tissues, and cells, and the physical and chemical phenomena related to organs, tissues, and cells.

Prenatal care: Medical services related to fetal, infant, and maternal health, delivered from time of conception to labor.

Prevalence: A measure of the number of individuals in a given population who have a specific disease or other condition at a designated time (or during a particular period). Point of prevalence-the proportion of individuals in a population who have a given condition, which is measured at a particular point in time. Lifetime prevalence-a measure of individuals considered at a point **in time who have ever had an illness. or condition which is under study.**

Preventive services: Strategies for ***health promotion*** or disease prevention that include counseling, screening, immunization, or chemoprophylactic interventions for individuals in clinical settings.

Primary prevention: A category of health and/or related interventions that aim to eliminate a disease or disordered state before it can occur. See ***health promotion, health protection, preventive services.*** Compare ***secondary prevention.***

Proactive: Efforts that attempt to promote **health,** and prevent the occurrence of health problems by changing environments rather than merely attempting to change individual behavior through didactic attempts at persuasion.

Problem behaviors (in adolescence): Those behaviors that have been deemed socially unacceptable or that lead to poor health outcomes (e.g., unprotected sexual intercourse).

Protective services: An aspect of ***social services*** designed to prevent neglect, abuse, and exploitation of children by reaching out with social services to stabilize family life (e.g., by strengthening parental capacity and ability to provide good child care). The provision of protective services follows a complaint or referral, frequently from a source outside the family, although it may be initiated by an adolescent (him or herself).

Puberty: The period of becoming first capable of reproducing sexually, marked by maturing of the genital organs, development of secondary sex characteristics (e.g., breasts, pubic hair), and in humans and higher primates, the first occurrence of menstruation **in the female.**

Reproductive health care: Can include a wide range of services related to the male or female reproductive systems, including gynecological treatment services (i.e., examination and treatment of the female reproductive organs), and preventive services related to the use of contraception (e.g., counseling, prescribing contraception methods, dispensing contraceptives). See also ***prenatal cure.***

Risk-taking behavior: An activity that may involve a risk to one's health. For adolescents especially, risk-taking generally carries a negative connotation, but some risk-taking is essential to the further development of competence, and thus some risk-taking can have positive health and other benefits.

Rolelessness: The perception by adolescents (and many learned observers) that adolescents as a socially defined group do not have clear and useful roles to play in American society. That is, their function consists largely of being students and otherwise preparing themselves for the future, but there are few expectations for them to contribute to society while they are adolescents.

Runaway: A young person who is away from home at least overnight without the permission of a parent or caretaker. See ***street kid.***

Rural: As strictly defined by the U.S. Census Bureau, rural refers to places of 2,500 or fewer residents. **Census-**recognized "places" are either 1) incorporated places such as cities, boroughs, towns, and villages; or 2) closely settled population centers that are outside of urbanized areas, do not have corporate limits, and (unless they are in Alaska and Hawaii) have a population of at least 1,000. The term "rural" is often used to refer to non-metropolitan statistical areas (i.e., any area not in a metropolitan statistical area, which, as defined by the U.S. Office of Management and Budget, a county or group of counties that includes either a city of at least 50,000 residents, or an urbanized area with at least 50,000 residents, or an urbanized area with at least 50,000 people that is itself part of a county/counties with at least 1000,000 **total residents).**

Safe sex practices: Sexual practices designed to avoid actual and potential transmission of HIV infection and other sexually transmitted diseases (e.g., avoiding exchange of body fluids, use of condoms).

SBC: School-Based Center.

School-linked health centers: Refers to any school health center for students (and sometimes the family members of students and/or school dropouts) that provides a wide range of medical and counseling services and is located on or near school grounds and is associated with the school. Compare ***comprehensive services for adolescents.***

School-loss day: A day in which a student missed more than half a day from the school in which he or she was currently enrolled.

Secondary prevention: An intervention that strives to shorten the course of an illness by early identification and rapid intervention.

Self-insured (health insurance) plan: A self-insured plan is a health benefit plan in which the financial risk for providing medical services is assumed by the employer or sponsor instead of purchasing health insurance from an insurance company. The employer or sponsor may continue to contract with an insurance company or other organization for claims processing and administrative services, as well as stop-loss insurance to limit the amount of their liability for medical claims.

Serious offenses: Federal Bureau of Investigation Part I offenses, which include specified ***violent offenses*** (i.e., murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault) and specified property offenses (i.e., burglary, larceny-theft, motor vehicle theft, and arson).

Sexual activity rate: As typically used in the report, the number of individuals who have ever had sexual intercourse, per some population base.

Sexually active: As typically used in the report, sexually active denotes ever having had sexual intercourse (as opposed to currently-being sexually active).

Sexually transmitted disease **(STD):** An infectious disease transmitted through sexual intercourse or genital contact. Formerly (and sometimes, in law) called venereal disease.

Social competence: Competence in aspects of interpersonal interaction, including managing social transactions, such as entry into social situations; ability to maintain satisfying personal and work relationships; ability to resolve interpersonal problems so that there is both mutual satisfaction in the encounter and preservation of valued goals; ability to improvise effective plans of action in conflicted or disrupted situations; and ability to reduce stress and contain anxiety within manageable limits. The mediating factors affecting social competence that have been found to be susceptible to ***life-skills training*** include the individual adolescent's: 1) motivation (i.e., to acquire knowledge and skills to enhance social competence); 2) knowledge base (i.e., about developmentally relevant health and social concerns); and 3) social skills (e.g., communication, empathy, ability to regulate one's own behavior).

Social services: Services provided in order to support the functioning of individuals or family units, including those services termed: 1) "supportive" or "*protective* services"; 2) supplementary services (i.e., financial assistance), 3) home aid services (e.g., homemaker, caretaker, and parent aid services), respite care); and 4) "substitute" services (e.g., shelter services, foster care, adoption).

SSI: Support Services, Incorporated, an Indian-owned and managed consulting firm located in Silver Spring Maryland. SSI conducted the evaluation of the Albuquerque Area TCs under contract to the Indian Health Services.

Status dropout rate: See *dropout rate*.

STD: Sexually transmitted disease; examples include AIDS, gonorrhea, and syphilis.

Street kid: A long-term *runaway, thrownaway,* or otherwise *homeless* child or adolescent who has become adept at fending for him or herself "on the street," usually by illegal activities.

Substance abuse: What constitutes adolescent substance abuse (any use of all or "problem" use) is a matter of controversy. The DHHS Office of Substance Abuse Prevention is of the view that any use by adolescents of psychoactive substances should be considered abuse; the American Psychiatric Association distinguishes between substance use, substance abuse, and *substance dependence,* although does not make distinctions by age. According to the American Psychiatric Association's diagnosis manual (DSM-III-R), substance abuse is characterized by maladaptive patterns of substance use that have never met the criteria for dependence for that particular class of substance, that results in harm to the user, and that the user continues despite persistent or recurrent adverse consequences.

Substance dependence: A mental disorder in which a person has impaired control of psychoactive substance use and continues use despite adverse consequences. It is characterized by compulsive behavior and the active pursuit of a lifestyle that centers around search for, obtaining, and using the drug.

Suicide: The taking of one's own life.

Survival sex: Engaging in sexual intercourse in exchange for food, shelter, money, or drugs.

Syphilis: A *sexually transmitted disease* caused by the bacterial agent *Treponema pallidum,* resulting in symptoms including chancre (primary syphilis); skin rash, malaise, anorexia, nausea (secondary syphilis); and eventually, central nervous system abnormalities and other serious problems (tertiary syphilis).

TC: Teen Center.

Third-party payment: Payment by a private insurer or government program to a medical provider for care given to a patient.

Thrownaway: A child or adolescent who has been told to leave the household, has been abandoned or deserted, or who has run away and no effort has been made to recover him or her.

Traumatic **brain injury:** Injury to the brain occurring as the result of impact.

Treatment: Interventions intended to cure or ameliorate the effects of a disease or condition once the condition has occurred.

Tribal groups: See ***Indian tribes.***

UNM: University of New Mexico; operated four **TCs** under contract to **IHS.**

Validity: A measure of the extent to which an observed situation reflects the true situation.

Violent offenses: According to the Federal Bureau of Investigation, serious **violent offenses** include murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Minor violent offenses include assaults without weapons and weapons violations.

Waiting mode: The waiting mode of health service delivery is characterized most strongly by professionals physically remaining with a service system and, indeed, waiting for clients, generally with chronic problems, to come to them. The waiting mode is distinguished from the "seeking mode" wherein professionals are usually physically operating outside the service system and seeing to intervene in problems before they become chronic. In practice, it is acknowledged that waiting/seeing is best thought of as a continuum, and less as a dichotomy.

Younger adolescents: As defined in most studies and data analyses, adolescents ages 10-14.

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