

Evaluation of the Effects of the North Carolina Improved Pregnancy Outcome Project: Implications for State-Level Decision-Making

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Abstract: This study was designed to assess the effects of the North Carolina Improved Pregnancy Outcome (IPO) Project on use of prenatal care and incidence of low birthweight among its primarily Black registrants. Weighted least squares and stratified analysis procedures were used to scrutinize vital statistics data for subpopulation effects. IPO services were received by 51.7 per cent of Black women in the counties served by the project. For all Black registrants, the risk of receiving less than adequate prenatal care was 55.1

per cent of that of the comparison group. For Black teenage registrants, the risk was even less: 37.2 per cent of that of the comparison group. Nevertheless, no corresponding effects on the incidence of low birthweight could be detected. The evaluation methods used in this study can be applied to programs for mothers and infants in other locales to generate useful and practical information for state-level decision-making (*Am J Public Health* 1984; 74:549-554.)

Introduction

Improved Pregnancy Outcome (IPO) Projects were launched in 1976 to "improve maternal care and pregnancy outcomes in states which have contributed excessively to the incidence of infant mortality."¹ The means by which improvement was to come about were essentially left to the discretion of states but emphasized organizational alternatives.^{1,2} Grants were awarded for five-year periods; by 1980, IPO projects were operational in 34 states.³ Since many of the projects have reached or will soon reach their fifth year of operations, federal involvement in IPO activities is currently being phased out.

In 1977, the Bureau of Community Health Services (BCHS) contracted with Geomet, Inc., to develop a comprehensive set of evaluation methods for application by individual IPO states.³ The methods were field tested in five states following one full year of operations. A number of improvements in service delivery and networking mechanisms were documented through that study, but the findings regarding pregnancy outcome were inconsistent.¹ Since the projects had been operating for only one year, lack of impact was not unexpected.

Another review and feedback operation was undertaken in 1980 and 1981 by Westinghouse Health Systems. A report of the findings revealed that most states had not been successful in carrying out assessments of project effects on pregnancy outcome.⁴ As a result, very little information about the effectiveness of the IPO strategy is available. At the time of this writing, no such reports have been published.

The purpose of this paper is to report the results of an evaluation of the impact of the North Carolina IPO Project on the use of prenatal care and the incidence of low

birthweight among the Project's Black registrants, and to demonstrate how the information derived from such an evaluation can become an important input to state-level resource allocation decisions.

The North Carolina IPO Project

North Carolina was awarded an IPO grant in 1977. A two-county area, characterized by poverty, rurality, and excessive rates of perinatal and infant mortality, was selected by the state as the project site. One of the counties had no public or private maternity services while the other county had a few resources; both counties, however, were served by a district health department which became the nucleus of IPO activities. The project's target population was the low-income mothers and infants who resided in the two counties. The majority of women who were admitted to the project were eligible for publicly funded medical assistance^b; however, all teenagers who sought IPO care were admitted, regardless of financial status.

In this underserved area, a pressing need for maternity services was addressed by introducing certified nurse midwives (CNMs) into the delivery system. The nurse midwives provided prenatal intrapart and postpart care with medical back-up from local obstetricians. To meet needs that extended beyond midwifery care, basic health department services were expanded to include nutrition counseling, social services, and health education. Individuals representing each of these disciplines formed health care teams to plan, coordinate, and monitor patient care. Implementation of the IPO Project in North Carolina coincided with initiation of a statewide regional perinatal care program. IPO activities were coordinated with that effort; a system of screening for prenatal risk and a special high risk clinic were instituted. Utilization of services was further encouraged in this rural area by various outreach and transportation activities, which were directed especially towards teenagers and other women at medical risk.

Methods

Design

The evaluation involved a retrospective analysis of vital statistics (birth and fetal death certificate) data. Reported

^a Payne SMC, Wallace HM, Cunningham GC, McNellis D: Improving Pregnancy Outcome; Effective Approaches in Times of Cost Containment. Paper presented at the 109th Annual Meeting of the American Public Health Association. Los Angeles, November 1981.

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^b Women were eligible for medical assistance if their annual incomes were lower than pre-established criteria which ranged from \$4,200 for a family of 1 to \$12,000 for a family of 13. Also eligible were women without any health insurance, regardless of income.

here are the findings from three sequential comparisons. First, a cohort of all Black women in the IPO counties who delivered between July 1, 1979 and June 30, 1981 (N = 1,254) was compared with all Black women who were residents of two geographically proximal counties and delivered during the same time period (N = 1,063). Second, Black IPO registrants (N = 648), a subset of the Black IPO counties' cohort, were also compared with all Black women in the comparison counties. Finally, a comparison was made between Black teenage IPO registrants, 10–19 years of age, (N = 297) and Black teenagers within the comparison counties (N = 318).

Study groups included only single deliveries which occurred within the state. Fetal deaths were included only if they had attained 20 or more weeks gestation.^c

Since the IPO Project was placed in its locale because of the excessive risk of the residents and since project services were targeted at women at greatest risk, construction of an appropriate comparison group was difficult. Efforts to minimize bias included careful selection of the comparison counties. They were selected from 27 geographically proximal counties because of similarities to the IPO sites on selected indicators of socioeconomic status, health care resources, and perinatal status prior to implementation of the Project. As indicated in Table 1, the residents of the selected counties tended to be at slightly less risk than residents of the IPO counties on almost every indicator; nevertheless, they demonstrated a greater degree of similarity to the IPO sites than any of the other candidate counties.

The evaluation was limited to comparisons between Black^d cohorts to increase the probability that groups with

similar characteristics were compared; the project served 51.7 per cent of the Black deliveries in the IPO counties, and 83.3 per cent of the total IPO registrants were Black. Separate analyses were conducted on Black teenage data because analyses of prenatal care data for the total population revealed an interaction between group membership and age. Moreover, this group was specifically targeted by the project, the project served 74.8 per cent of the Black teenagers in the IPO counties, and it was hypothesized that this subpopulation of the IPO cohort and the Black teenagers in the comparison counties would be most similar with regard to potentially confounding influences (e.g., health care behavior patterns, nutritional status, smoking).

Measures

All measures were taken from records of vital events maintained by the North Carolina State Center for Health Statistics. Five indicators of maternal characteristics, associated in previous investigations with use of prenatal care and/or pregnancy outcomes⁸⁻¹⁷ were dichotomized as control factors: maternal education (11 or fewer years and 12 or more years); age of mother (10–19, and 20 or more years);^e reproductive risk (no history of a previous fetal, infant, or childhood death and one or more prior losses). Adequacy of prenatal care was measured by an adaptation of the index developed for the Institute of Medicine study of infant death in New York City.⁹ The index is based upon the number of prenatal visits adjusted for trimester of first visit and gestational age at delivery, as shown in the Appendix. For this analysis, prenatal care was categorized as adequate or less than adequate.^f Birthweight was classified as ≤ 2500 or ≥ 2501 grams.

Data Quality

A computerized matching procedure, supplemented by manual comparisons, was used to identify the IPO registrant population within the IPO counties in vital record files. The procedure resulted in a 5.7 per cent loss of subjects, a percentage that compares favorably with two previous investigations in which a similar approach was used.^{18,19}

Generally, the quality of vital statistics data was very good: less than 0.2 per cent of the entries on most items were missing. In 39 per cent of the cases, however, the "day" entry in "date" of last menstrual period (LMP) was omitted. Since gestational age was a critical element in calculation of the adequacy of care index, omission of those cases from the analysis could have introduced a serious bias to the study. To retain those cases, the missing "day" entries were set to "15" and gestational age was calculated according to the Julian formula.^g

Gestational age entries were also examined for biological plausibility.²⁰ We found that 2.8 per cent were incompatible with recorded birthweights²¹ or were greater than 48

TABLE 1—Major Criteria Used in Selection of Comparison Counties

Criterion	Year	IPO Counties	Comparison Counties
% Population Below Poverty Level*	1970	25.0	24.7
% Population Non-white*	1970	38.9	37.1
% Population Living in Rural Areas*	1970	51.9	72.3
OB/Population Ratio**	1977	1/19044	1/10902
% Female Population (15–44), Below Poverty, in Need, and Served by Organized Family Planning Services‡	1975	31.3	45.6
Hospitals**	1977 and beyond	1 (378 beds)	1 (315 beds)
Number Resident Deliveries‡‡	1972–76	5907	5791
Nonwhite Birth Rate‡‡	1972–76	21.6	20.6
Nonwhite Perinatal Mortality Rate‡‡	1972–76	42.4	38.9
Nonwhite Per cent Live Births ≤ 2500 Grams‡‡	1972–76	12.4	11.6
Nonwhite Per cent Deliveries to Women <18 Years‡‡	1972–76	21.5	18.8

*SOURCE: Bureau of the Census.⁴ A closer match of counties may have been attained with intercensal data. However, 1970 data were used because the intercensal report (County and City Data Book, 1977) did not include updated figures for these items.

**SOURCE: Health Services Research Center.⁵

‡SOURCE: Alan Guttmacher Institute.⁶

‡‡SOURCE: North Carolina Department of Human Resources.⁷

^c In North Carolina, fetal deaths of less than 20 weeks gestation are not reportable events. Induced abortions are not reported on fetal death certificates.

^d The term "Black" refers to all non-white deliveries, 99.2 per cent of which were actually coded Black. The remaining 0.8 per cent were either American Indian or Oriental.

^e In preliminary analyses, three categories of age (10–19, 20–34, and 35 or more) and three categories of parity (1, 1–3, and 4 or more) were included. However, the third category of each variable did not make a significant contribution to the models so the second and third categories were combined.

^f In preliminary analysis, IPO Project influence on three categories of care—adequate, intermediate, and inadequate—was assessed. Those analyses provided support of the findings reported here but offered little additional information. As a result, they are not included in this report.

^g Julian formula:

Julian birth date – Julian LMP (+365 if difference in year)

7

The result is rounded to the nearest completed week of gestation.

weeks gestation.^h These entries were considered beyond the limits of biological plausibility and were recorded as missing entries. The accuracy of the other vital record items used in this study was not investigated.

Analysis

Analysis of the data was conducted in two stages. The first stage involved application of the Grizzle, Starmer, Koch (GSK) weighted least squares procedure, a multivariate method for describing linear relationships between categorical dependent and independent variables.^{22,23} Each GSK model included group membership, a dichotomous factor (i.e., IPO registrant or member of the comparison group), and the control factors as independent variables. Dependent variables were adequacy of care (i.e., adequate or less-than-adequate) and birthweight.

The GSK procedure provided estimates of a measure of the average or adjusted difference between groups when control factors were taken into account, and it allowed identification of the significant factors and interaction terms that contributed to the dependent variables. Significant interactions indicated that the average difference between groups was not consistent in direction and/or magnitude across subgroups in the population. To investigate the interactions in more detail, a stratified analysis procedure, developed for the analysis of epidemiologic case-control studies²⁴ was used. The procedure, which is particularly appropriate in this analysis because of the dichotomous classification of variables, provides several measures of risk. Two of them, the odds ratio and a measure of population attributable risk (TPAR), are reported here.

Odds ratios were derived for each level (stratum) of the control factors which were found significant in the GSK analyses. A weighted average odds ratio (SOR) was derived for each set of strata.

Because the 2 × 2 tables were set up in a consistent format, SORs could be interpreted in the same manner for each dependent variable: an SOR less than 1.0 indicated that the IPO group had a smaller risk of experiencing the unfavorable event than the comparison group, while an SOR greater than 1.0 indicated that the IPO group had a greater chance of experiencing the unfavorable event.

The TPAR is the second measure derived from the stratified analysis procedure and reported in this paper. This measure is an interpretation of population attributable risk in the context of a beneficial, rather than the more often cited harmful, exposure. It is an estimate of the percentage increase in the probability of having an unfavorable event by removing a beneficial program (i.e., IPO) from the population. The TPAR is adjusted by a weighting procedure based on the number of observations per stratum.

Results

Population Characteristics

Table 2 shows that the Black populations of the IPO and comparison counties were very similar during the study period with respect to each of the characteristics, but that the IPO registrant group consisted of larger proportions of

^h David²⁰ considered a gestational age of 46 weeks or more suspicious. In this study, the age was extended to greater-than-48 weeks because a potential error of two weeks was introduced by correcting for missing "day" entries in the LMP item. Also, a larger decrease in the relative incidence of deliveries was found after 48 weeks when compared with the reductions at 46 and 47 weeks.

TABLE 2—Percentage Distribution of Maternal Characteristics, Black Live Births and Fetal Deaths, IPO Counties, IPO Registrants, and Comparison Counties, 1979–81

Maternal Characteristic	IPO Counties (N = 1254)	IPO Registrants (N = 648)	Comparison Counties (N = 1063)
Age of Mother			
10–19	31.7	45.8	29.9
20–34	63.8	52.2	66.9
≥35	4.6	2.0	3.2
Marital Status			
Married	47.6	32.1	49.9
Not Married	52.4	67.9	50.1
Education			
≥12 years	53.7	43.1	53.7
0–11 years	46.3	56.9	46.3
Parity			
1	34.8	44.1	34.8
2–3	44.5	40.0	46.8
≥4	20.7	15.9	18.4
Reproductive Risk			
Low	79.4	82.7	75.5
High	20.6	17.3	24.6

women at risk (teenagers, unmarried, and undereducated women, and first pregnancies). In some risk categories, however, IPO registrants were not overrepresented. Proportions of women 35 years and older, parity 4 or more, and high reproductive risk were actually smaller than either of the other (IPO counties and comparison counties) cohorts. This variation was due to the larger proportion of teenagers in the IPO registrant group who were less likely to have had previous pregnancies.

The distributions of maternal characteristics for Black teenagers are shown in Table 3. As expected, these subpopulations included fairly equivalent proportions of risk characteristics. A notable exception, however, is the 91.2 per cent of unmarried women in the IPO registrant group, compared with 87.4 per cent in the IPO counties and 83.9 per cent in the comparison counties.

Adequacy of Prenatal Care

During the 1972–1976 time period, immediately prior to implementation of the IPO Project, 26.9 per cent of Blacks in the IPO Counties and 19.5 per cent of Blacks in the comparison countiesⁱ received adequate prenatal care. By the time of this study, the corresponding percentages were 49.6 and 30.3. The proportion in the IPO counties had increased by 84.4 per cent and in the comparison counties by 55.4 per cent.

Results of controlled comparisons made during the study period (1979–81) are shown in Table 4. The SOR suggests that the odds of Black women in the IPO counties to receive less than adequate care were 41.5 per cent of the odds of Black women in the comparison counties.

Despite the excess risk of IPO registrants when contrasted with women in the comparison counties (Table 2), the former group also included a larger proportion (41.2 per cent) of women who received adequate care, and the SOR indicated the Black IPO registrants were about half (55.1 per

ⁱ Unpublished Data of the North Carolina State Center for Health Statistics. These data were not used as criteria for selection of the comparison counties because they were not available at the time that this study was undertaken.

TABLE 3—Percentage Distribution of Maternal Characteristics, Live Births and Fetal Deaths of Black Women 10–19 Years of Age, IPO Counties, IPO Registrants, and Comparison Counties, 1979–81

Maternal Characteristic	IPO Counties (N = 397)	IPO Registrants (N = 297)	Comparison Counties (N = 318)
Marital Status			
Married	12.6	8.8	16.0
Not married	87.4	91.2	83.9
Education			
≥12 years	26.0	25.3	24.8
0–11 years	74.0	74.7	75.2
Parity			
1	66.5	69.0	69.2
2–3	31.4	29.3	29.2
≥4	2.0	1.7	1.6
Reproductive Risk			
Low	90.2	91.2	87.1
High	9.8	8.8	12.9

cent) as likely to receive less-than-adequate care as Black women in the comparison counties.

An interaction between group membership and maternal age was significant in the analysis of Black IPO registrants and the comparison group ($p = .0133$). Stratified analysis revealed that the IPO registrant group included significantly larger proportions of women who received adequate care in both age categories but the magnitude of difference was greater among teenagers. As shown in Table 4, the per cent of Black teenage IPO registrants who received adequate perinatal care was significantly larger than that of Black teenagers in the comparison counties. Black teenage IPO registrants were 37.2 per cent as likely to receive less-than-adequate care. Moreover, the measure of attributable risk indicated that the risk of receiving less-than-adequate care would increase by 39.4 per cent for all Blacks and by 75.1 per cent for Black teenagers if IPO services were no longer available to those population groups.

Incidence of Low Birthweight

Despite apparent improvements in the adequacy of prenatal care, Blacks in the IPO counties experienced a low birthweight per cent of 11.5, compared to 10.1 per cent of Blacks in the comparison counties. As shown in Table 5, the difference between groups when the control factors were taken into account was not significant. The difference in crude rates, however, was slightly larger than it had been in

TABLE 4—Summary of Findings,* Per Cent of Black Women Who Received Adequate Prenatal Care**

Project Group	Per Cent	Comparison Group	Per Cent
IPO Counties	49.6	Comparison Counties	30.3‡
IPO Registrants	41.2	Comparison Counties	30.3‡‡
IPO Registrants (10–19 years)	37.8	Comparison Counties (10–19 years)	18.3#

*The variables controlled in this analysis were education, age, parity, marital status, and reproductive risk.

**21 (2.1%) women in the comparison counties and 17 (1.4%) women in the IPO counties received no prenatal care. All IPO registrants received some prenatal care.

‡ $p < .0001$; SOR = .415 (95% CI .344 – .499); TPAR = 80.66.

‡‡ $p < .0001$; SOR = .551 (95% CI .442 – .687); TPAR = 39.41.

$p < .0001$; SOR = .372 (95% CI .254 – .546); TPAR = 75.12.

TABLE 5—Summary of Findings,* Per Cent of Black Live Births, 2500 Grams or Less

Project Group	Per Cent	Comparison Group	Per Cent
IPO Counties	11.5 (142)	Comparison Counties	10.1** (106)
IPO Registrants	11.6 (68)	Comparison Counties	10.1‡ (106)
IPO Registrants (10–19 years)	13.3 (59)	Comparison Counties (10–19 years)	13.9‡‡ (43)

NOTE: Numbers in parentheses indicate Black live births ≤2500 grams.

*The variables controlled in this analysis were education, age, parity, marital status, and reproductive risk.

** $p = .3357$; SOR = 1.140 (95% CI .873 – 1.489); TPAR = 0.

‡ $p = .8120$; SOR = 1.040 (95% CI .755 – 1.431); TPAR = 0.

‡‡ $p = .8410$; SOR = .953 (95% CI .598 – 1.520); TPAR = 2.32.

the 1972–1976 period before the project started. In the earlier time period (see Table 1), 12.4 per cent of Black residents of the IPO counties and 11.6 per cent of Black residents of the comparison counties had live births, ≤ 2500 grams.

Despite the relatively greater risk of Black IPO registrants when compared with all Blacks in the IPO counties, their low birthweight proportions differed very little and the difference was not significant. No interactions were significant in these analyses but, for consistency, low birthweight differences between Black teenage groups were examined.

As Table 5 shows, the proportions of low birthweight babies in the Black teenage subpopulations were very similar. While the IPO registrant group had a slightly smaller proportion, the difference between groups was again not significant.

Discussion

The results of this evaluation indicate that the IPO Project was associated with increased use of prenatal care for Black registrants, particularly teenagers. No corresponding improvement in the incidence of low birthweight was found, however. Unfortunately, the findings offer little insight as to why the project apparently fell short of this basic objective but three possible explanations are explored briefly below.

Efforts to favorably influence the incidence of low birthweight have been hampered by a scarcity of information about the etiology of the problem.²⁶ Some correlates have been identified: preterm labor (which is associated with the majority of low birthweights),²⁷ alcoholism, smoking, nutritional deficiencies, hypertension, and maternal diabetes.²⁸ Each of these problems was targeted by the project for early identification and management during the years covered by this evaluation.[‡] However, information about the most effective means of dealing with the first three problems was even less available than that it is at present. The systematic protocol for management of women at risk of preterm delivery, as suggested by Creasy and colleagues,^{29,30} for example, and extensive use of behavior modification strategies to change smoking and drinking habits have only recently received widespread dissemination. Thus, while IPO efforts seem to have been directed at the appropriate

‡ North Carolina Department of Human Resources. North Carolina Improved Pregnancy Outcome Project Continuation Applications, Fiscal years, 1979–80 and 1980–81.

problems, the problems may not have been responsive to the screening and intervention procedures commonly used during the study period.

Alternatively, the effectiveness of newer approaches to addressing correlates of low birthweight have not yet been clearly demonstrated and the "older" approach of comprehensive care, which this IPO Project used, has been associated with better rates of low birthweight in at least one controlled study.³¹ There are, however, many possible levels of intensity that comprehensive services may assume. In this rural project, acquiring and keeping the providers necessary for multidisciplinary teams were continuous problems and were particularly severe with regard to nurse-midwives. As a result, the processes of care provided by the project may have been entirely appropriate but, because of staffing shortages, the intensity of care required by a high risk population to improve birthweight distribution, could have been inadequate.

A third possible explanation for these findings is that favorable project effects on low birthweight existed but were not detected because the IPO population was at greater risk than the comparison group. The data provide some evidence to support this explanation. As noted above, the comparison counties consisted of smaller proportions of Black women with adverse maternal characteristics than the IPO registrant group. While those characteristics were controlled in the analysis, their relative values may indicate that the comparison population was more advantaged in other respects, such as income levels, health care practices, environmental influences, personal habits (e.g., smoking, drinking, drug ingestion), or nutritional status that could affect birthweight distribution.^{28,32,33} Even the two subpopulations of Black teenagers differed somewhat with a considerably larger proportion of unmarried adolescents in the IPO group. If the groups differed with regard to uncontrolled elements, a modest project effect on birthweight, possibly suggested by the Black teenage comparison, may not have been detected with the present methods.

While the above speculations are intriguing, the data available for this study cannot support or deny them. An analysis covering a longer period of time with larger sample sizes might produce more conclusive findings. A more extensive evaluation, employing a broader array of outcome and control variables, could yield valuable insights particularly in view of recent evidence that the rapid decline in fetal mortality for very low birthweight babies has resulted in an increase in live births of very small fetuses.³⁴ An analysis of project effects on neonatal mortality could also be enlightening since the project could have contributed to improvements in neonatal mortality without significantly affecting birthweight distribution.

Unfortunately, the luxury of "further investigation" requiring additional resources and time is rarely available to IPO Project managers faced with diminishing federal funds and decisions regarding whether or not to continue these programs. While the results of this study are not as definitive as might be desired, they did provide two pieces of useful information for deciding the fate of the North Carolina IPO Project: 1) the project has served large proportions of Black women at risk in the two IPO counties; and 2) IPO services have apparently improved the quantitative adequacy of prenatal care received by Black registrants to the point that the risk of receiving less-than-adequate care could increase by 39.4 per cent for all Blacks and 75.1 per cent for Black teenagers if project services were discontinued. This infor-

mation, considered in light of evidence that improved adequacy of care is associated in the aggregate with improved pregnancy outcomes,^{9,35} particularly among high risk groups,^{18,36} suggests that the project should be continued. The equivocal results with regard to low birthweight suggest that project services should be examined in more detail, and, if appropriate, altered. If some proportion of the IPO funding must be cut, however, the findings suggest that services for Black teenagers, who seem to have benefited greatly from efforts to improve adequacy of prenatal care, should be maintained.

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APPENDIX

Criteria for Adequacy of Care Index Levels*

Adequacy of Care	Trimester of First Prenatal Visit	Gestation (Weeks)	Number of Prenatal Visits
Adequate	First (1-3 Months)	13 or less	1 or more or not stated
		14-17	2 or more
		18-21	3 or more
		22-25	4 or more
		26-29	5 or more
		30-31	6 or more
		32-33	7 or more
		34-35	8 or more
		36 or more	9 or more
		Less-than-Adequate	All Other Combinations

*Adapted from reference 9.

Conference on Health Promotion Set for June in Tennessee

The Society for Public Health Education announces a three-day national conference, "Health Promotion for High Risk Populations" to be held June 20-22, 1984, at East Tennessee State University, Johnson City, Tennessee.

The conference will address the special needs for planning health promotion programs for the poor, ethnic minorities, children, adolescents, women, workers, patients with disabilities and long-term chronic illness, and older people.

Workshops and scientific sessions will review recent developments concerning the motivational and environmental factors predisposing, enabling, and reinforcing healthier lifestyles. In addition, there will be discussions regarding the modification of behaviors such as smoking, alcohol and drug use, dietary patterns, exercise, stress and control of violence.

The conference will include symposia for presentation of scientific papers and workshops for problem solving on special populations and program evaluation techniques. There will be an opportunity to attend more than one workshop; each workshop will be presented twice.

Registration fees are \$125 for SOPHE members, \$150 for non-members, and \$75 for students (on-site registration fees are \$25 higher in each category).

For further information, contact SOPHE, Mid-year Conference, 703 Market Street, San Francisco, CA 94103, (415) 546-7601.