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COMPREHENSIVE OBSTETRIC CARE PROGRAM AND
THE CHILD HEALTH ACT OF 1967*

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In this paper, experiences of the past four years of the Maternity and Infant Care Projects will be summarized and proposed next steps in improving obstetric care for women of low income described. The relevant provisions of the Child Health Act of 1967 are based on the results of the first few years of the operation of this program.

In 1962, the President's Panel on Mental Retardation pointed out that thousands of women of low-income, especially those in our cities, were giving birth prematurely from two to two and one-half times the expected rate; that low birth weight babies were likely to have brain damage; that these women had excessive rates of complications of pregnancy, and that between one-fourth to one-half of women in low-income families of our large cities delivered having had late or no prenatal care. The women for whom pregnancy was accompanied by complications much in excess of the expected and

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who therefore needed good care were receiving poor care in crowded, understaffed hospitals. The President's Panel recommended that a new program of maternity and infant care focused on high risk patients be established in order to help reduce the incidence of mental retardation caused by complications associated with childbearing.

The findings of the President's Panel are symptomatic of the impact of social change on maternal and infant health. In the past two decades there has been a massive movement of the population from rural areas to urban, and from the cities to the suburbs, greatly increasing the proportion of low-income families in the cities and leading to the present urbanization of the Negro population, three-fourths of whom are now living in the cities.

From various cities data became available indicative of serious deficiencies in the provision of prenatal care for low-income patients. In the early part of this decade it was reported that between one-fourth and one-half of women delivered at city and county hospitals in the major cities had had poor or no prenatal care.

In the low-income districts of the major cities, the low birth weight rates are between two and two and one-half times higher than the national average for white infants. Of all live births in 1966, 8.3% weighed 2500 grams or less, a proportion which has been steadily increasing. Of non-white births, 13.9% were low birth weight as compared with 7.2% for white infants.

The maternity and infant care program began in the spring of 1964. There are now 53 projects in operation in large and middle-sized cities and in rural areas, with Federal funds under Title V of the Social Security Act meeting up to 75% of the costs of the projects. The appropriation for this program has been \$30 million for each of the past three years. The objectives of these programs are the reduction in maternal and infant mortality and morbidity and taking steps which will assist communities in so organizing their maternity and infant care services as to increase the accessibility of care, to improve the quality of care and to make use of the best available resources in providing comprehensive maternity and infant

care for low income high risk patients. In many respects they have served as a prototype of several subsequent programs with similar objectives of altering the prevailing patterns of providing medical care for the poor.

These and the related Comprehensive Health Projects for Children and Youth, and the Office of Economic Opportunity Neighborhood Health Centers, are making it possible for community health organizations to develop new and imaginative methods of reaching out to the people in slum areas, decentralizing services into neighborhoods, reducing crowding in tax-supported hospitals by paying for care in voluntary hospitals and establishing well-organized systems of providing comprehensive health programs of casefinding, prevention, health supervision and treatment. Such programs, for the most part, are being carried out in areas where there are few physicians in private practice and where existing clinics are grossly overcrowded. In these areas they are creating new resources and changing existing methods of delivering health services so as to be responsive to the needs of the people.

During the fiscal year 1968, over 118,000 women were admitted to the Maternity and Infant Care Projects, 103,500 were delivered and 83,500 admitted to family planning services. It is these programs which opened the door to family planning services for thousands of low-income families for the first time.

The characteristics of the women admitted to the projects show a much higher proportion of high risk factors than is generally true of women giving birth in this country.

The most frequently reported medical complications of pregnancy in this program are the anemias, obesity, and previous pregnancies terminating in fetal loss and premature delivery. The prevalence of these and other characteristics of the patient population which are associated with increased risk to the infants is not surprising since it was the recognition of these factors which led to the establishment of the program.

Among 16,319 completed pregnancies for which reports were received between December 1966 and December 1967, the proportion of low birth weight babies was 14%. Of the obstetric patients who smoke, 15% had low birth weight babies, compared with 12% of non-smokers.

That low birth weight among non-white babies in this program is a serious disadvantage for them is indicated by the Apgar score. Scores of less than 4 occurred among 15% of the premature non-white infants, which is 7 times the rate of such poor scores among non-white babies over 2500 grams. The contention that "premature" non-white babies although small are not physiologically hampered to the same extent as "premature" white babies is not supported by these data.

From the New York Medical College program, Gold^{1/} reports that 1,000 women were selected for the program because of high risk factors; that these averaged 1.6 per patient at admission, and were distributed as follows:

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| Previous history of prematurity, stillbirth, infant death..... | 36% |
| 16 years old or less..... | 21% |
| Weight 100 lbs or less..... | 18% |
| Weight 200 lbs or more..... | 13% |
| Grandmultipara..... | 13% |
| Hypertensive disease..... | 9% |

^{1/} Gold, E., and Stone, M., "Total Maternity and Infant Care."
(To be published).

The nature of these complications, the brief period available to the obstetrician to modify their unfavorable influence on the outcome of pregnancy and the large proportion of low birth weight infants born to this group of women has led Gold to emphasize strongly the necessity of providing inter-conceptual care if the next pregnancy is to have a more favorable outcome. Such interconceptional care must include family planning. Gold's series of patients also helps to put prenatal care in a better perspective. How much can be accomplished in the treatment of patients with problems of this magnitude in the few months prior to delivery?

In the maternity and infant care projects (and as reported also by others) the proportion of low birth weight infants is highest among women less than 18 and more than 35 years of age. Childbearing characteristically starts earlier in low income groups and continues longer than in the middle class. Analyses of numerous studies of prenatal factors influencing birth weight have recently been published by Day,^{2/} Bishop,^{3/} and Terris.^{4/} The factors are multiple, complex and the relationships of such apparently basic influences as maternal nutrition

^{2/} Day, R. "Factors Influencing Offspring." Am.J. Dis. Children, Feb. 1967.

^{3/} Bishop, E.H. "Prematurity, Etiology and Management," Postgrad. Med. 35:185-88, Feb. 1964.

^{4/} Terris, M. "The Epidemiology of Prematurity in Research Methodology and Needs in Perinatal Studies." Charles Thomas.

remain unresolved. We are proceeding however on the basis that maternal age, parity and especially interval between pregnancies are significantly associated with birth weight and fetal loss. In Bishop's study of 16,000 consecutive deliveries at the Pennsylvania Hospital, for example, the low birth weight rate was 9.8%. When the interval between pregnancies was less than 12 months, the low birth weight rate was 18.0%; when the interval was more than 23 months, it was 7.8%. Where there was no previous pregnancy the incidence was 11.4%. The association with maternal age and previous history was similar to that of other studies. It is not clear from Bishop's paper just how he defines the interval between pregnancies. For this purpose the interval should be defined as the period between the end of one pregnancy and the beginning of the next.

The influence of a comprehensive maternity and infant care program on birth weight, therefore, may become evident in the second or third pregnancy under the program rather than the first. The extension of the program for four more years as authorized by the Child Health Act of 1967 provides the opportunity to study the outcome of such subsequent pregnancies.

The relationship of the interval between pregnancies to neonatal mortality is suggested by data supplied by Daily of the New York City Maternity and Infant Care Project. Of 4,233 live births under the New York City Maternity and Infant Care

program to patients who had had a previous pregnancy, 55% of those delivered had an interval of less than 24 months since the termination of the previous pregnancy. Their infants had a neonatal mortality rate of 20.6. The babies born to Maternity and Infant Care Project patients who had an interval of two to three years between their pregnancy terminations had a neonatal mortality rate of only 7.2. The problem of interval definition applies here also.

There are indications that these programs are contributing significantly to the large reductions in infant mortality which are now taking place nationally and in major cities.

The 19% increase in infant mortality that occurred in Baltimore in the decade 1950-1960 was representative of the trends in the major cities toward higher rates in that period. Only 3 of the 21 largest cities had significant annual reductions in their infant mortality rates during the period 1960-1965. For the nation as a whole, infant mortality decreased by only 5% during the entire decade 1956-1965.

From this rather depressingly static situation, there was a sudden change in 1966 when the rate dropped to 23.7 per 1,000 live births, a decrease of 4% over the previous year. The provisional rate for 1967 was 22.1. In other words, in the

past two years the infant mortality rate has decreased twice as much as in the entire previous decade. For the first six months of 1968 the provisional rate is 3.2% below the 1967 rate.

Reversing the trend of previous years, large cities are now experiencing much greater reductions than the nation as a whole. In the District of Columbia, the rate in 1967 decreased to 32.6 from 35.3; the negro rate decreased even more, from 37.9 to 33.9 or by 10.6%. The maternity and infant care program has made possible an increase in annual admissions to the city's prenatal clinics from 5,000 to 9,000 in 3 years and a 37% increase in admissions to family planning last year to 6,000 women.

In Houston, the infant death rate declined from 26.4 in 1966 to 22.1 last year, a 16% reduction. The maternal mortality rate decreased from 6.15 to 2.67 per 10,000 births. The maternity and infant care project in this city is administered by the health department in conjunction with Baylor University School of Medicine and the Houston Planned Parenthood Association. Two years ago, about two-thirds of the women delivering at the Jefferson Davis Hospital had not seen a physician prior to delivery. Last year, the chairman of the Department of Obstetrics reports this had been reduced to less than 25%.

Five thousand new patients were admitted to family planning services in the past year.

In Chicago, in 1967, there was a 9.6% reduction in infant mortality over the previous year - from 32.5 to 29.5. The decrease in the negro rate was 16.8%, the largest ever achieved.

In Baltimore, the 1967 rate of 26.8 was 4% less than the previous year with the non-white rate 15% less.

In several of the larger programs data is now becoming available which provide a comparison of infant mortality rates of infants born under the project with the infant mortality rates of the city as a whole or with other comparable groups.

The neonatal mortality rate for New York City in 1966 was 18.6 per 1,000 live births; for the 4,214 infants born under the project in that year it was 16.1, a difference of over 13%.

In Puerto Rico, the districts of the Northeast Region in which the Maternity and Infant Care Project is in operation had an infant mortality rate of 23.8 in 1967, having experienced a sharp reduction over the previous 2 years. For the San Juan and Rio Piedras districts of the same region in which the program is not in operation the rate was 27.8, and showed little change in 3 years. The districts are comparable with regard to socio-economic levels. The number of births involved in 1967 was over 24,000 in the two groups being compared.

In Chicago, Zackler* compared the neonatal mortality of project infants with non-project infants whose mothers in each group were age 15 or less at conception. The neonatal mortality rate among 2,368 live births whose care was provided by the 502 Project was 19.0. Among the 4,400 live births outside the project it was 36.8. The difference was even greater when the comparison was made of the negro births in the two groups. This covers the period January 1, 1965 to June 30, 1967.

In Miami, Florida, the infant mortality rate for Dade County in 1967 was 23.2. For project infants it was 15. The neonatal mortality rate for non-project premature infants was 5 times greater than for project-born prematures.

These cities have large maternity and infant care and family planning programs. While the reasons for this dramatic change in infant mortality have not been established in a cause and effect relationship, the only new contributory factors which have been identified are the rapid increase in family planning among the poor and comprehensive maternity programs focused on the most vulnerable population. In the fiscal year 1968, 420,000 women of low income received family planning services chiefly at postpartum visits through health departments' maternity programs in both urban and rural areas. If we accept the figure of 750,000 births

*Zackler, Jack. Paper in process of being published.

to women in poverty, this means that family planning was initiated in over 50% of these postpartum women through the Maternal and Child Health and Maternity and Infant Care programs.

The opportunity for major expansion of obstetric and infant care and of family planning services is provided for by the Child Health Act of 1967. This extends the maternity and infant care projects until June 30, 1972 and authorizes for the first time an appropriation specifically for family planning services. No less than 6% of the annual appropriation for Title V of the Social Security Act is to be used for family planning services. At present, virtually all the family planning services in the programs administered by the Children's Bureau are provided women at their postpartum visits. The Child Health Act of 1967 authorizes, in addition, separate family planning projects which will provide family planning services regardless of previous pregnancy. Any local voluntary non-profit organization may apply for a grant as well as hospitals, health departments and medical schools, with Federal funds providing 75% of the cost.

Project grants for the support of intensive care units for infants is also authorized. One of the amendments places an emphasis on studies of the feasibility, cost and effectiveness of maternal and child health programs in which maximum use is made of health personnel with varying levels of training.

The Child Health Act of 1967 also recognizes that the further extension of programs for pregnant women and children necessitates an expansion of training support to increase obstetric and pediatric manpower.

To achieve further progress in the reduction of infant mortality during the next five years necessitates increased program development in maternity and infant care and family planning with a larger financial commitment. We are at present reaching only one in five of the pregnant women in poverty.

In his State of the Union Message on January 17, 1968, President Johnson stated "I shall therefore propose to the Congress a Child Health Program to provide over the next five years for families unable to afford it - access to health services from prenatal care of the mother through the child's first year." The program which has been drafted will build

on the experience gained in the Maternity and Infant Care Projects to provide maternity and infant care by the fifth year to between 600,000 and 750,000 women of low income, and their infants. State plans would be so designed as to show progressive extension of these services until they are available to women and infants of low income families in all parts of each State. This would mean that for the first time it would be possible to plan a program to provide maternity and infant care of good quality for virtually all pregnant women of low income and for their babies. Such a program can be expected to make a significant reduction in the disparities that now exist in the amount and quality of care available as well as in the infant mortality rates between the different income classes in our society.