

# ANNOTATIONS

## PREMATURITY, CONGENITAL MALFORMATION AND BIRTH INJURY<sup>1</sup>

**F**URTHER progress in the saving of infant lives will depend very largely on the development of measures to reduce perinatal mortality, since stillbirths and early neonatal deaths are now responsible for more than 80 per cent of infant deaths. Prematurity is a factor in a majority of deaths in the perinatal period. Therefore, Proceedings of the Conference on Prematurity, Congenital Malformation and Birth Injury deal with problems of current importance and of pressing concern to public health workers.

This report brings together the results of basic research in a variety of fields which have a bearing on prevention of prematurity, anomalies and birth trauma and on management of conditions, such as atelectasis, anoxia and anemia, which affect survival. A partial listing of the problems considered will indicate the fundamental and complex nature of the problems to be solved in order to prevent congenital malformations and death of premature babies in the perinatal period.

Studies related to prematurity that are described include: the pathology of the respiratory tract with special consideration of hyaline membrane of the lung, mechanical expansion of atelectatic lungs and mechanical exsufflation; immunization in the premature infant; fetal hemoglobin and anemia of prematurity; maturation of respiratory enzymes in the central nervous system and the mechanism of anaerobic metabolism which enables the fetus to withstand anoxia; carbohydrate metabolism; the endocrine system in the premature infant;

<sup>1</sup> **PREMATURITY, CONGENITAL MALFORMATION AND BIRTH INJURY.** Proceedings of a Conference sponsored by Association for the Aid of Crippled Children. Published by the Association, 345 East 46th Street, New York 17, New York, 1953. 255 pages.

and obstetrical and prenatal factors in the prevention of prematurity.

The section on congenital malformation reviews the results of several laboratory experiments with the production of congenital anomalies in animals. Also, classes of malformations in human embryos and newborn infants are described, and various mechanisms of maldevelopment are postulated. In this section, the application of epidemiological methods to the study of association of congenital anomalies and disabilities occurring in human populations with events occurring during pregnancy and parturition and with various characteristics of the mother is discussed. Studies in New York State of children with cerebral palsy and of mental defectives suggest an association between prematurity and these conditions. From a statistical study of malformed infants born at Boston Lying-In Hospital, data are presented which indicate an association with prematurity, fetal loss and complications of pregnancy.

Conditions related to birth injury which are considered include late pregnancy hemorrhage, anoxia in the newborn infant, and pelvic contraction.

It is apparent from the data presented at this Conference by experts in many fields that research in progress is adding significantly to our knowledge of fetal development and of factors affecting a successful outcome of pregnancy. The outlook is hopeful that a solution of some of the problems can be expected in the near future and will result in better protection of life and health of the newborn infant. In many areas, much research is still needed.

DOROTHY G. WIEHL

• • •

## GROUP DYNAMICS<sup>1</sup>

WHEN social science is big business, as it is today, one is not surprised to find certain segments flourishing while others appear to move at a more settled pace. The area of interest which is encompassed by the term "group dynamics" is one which has had a

<sup>1</sup> Cartwright, Dorwin and Zander, Alvin (Editors): *GROUP DYNAMICS: RESEARCH AND THEORY*. Evanston, Illinois, Row, Peterson and Company, 1953, xiii + 642 pp. \$6.00.