

BIRTHS

INFANT MORTALITY

MATERNAL MORTALITY

GRAPHIC PRESENTATION

1940



U.S. DEPARTMENT OF LABOR
CHILDREN'S BUREAU

1943

The charts, maps, and tables here assembled present most of the pertinent data on births and on infant and maternal mortality in the United States. Such charts when issued annually constitute a graphic record of the changes that are occurring in these vital indexes. These changes--important indicators in peace time--assume even greater significance in time of war. However, because of necessary economies the complete series of these charts will not again be issued for the duration of the war. The present series, relating to 1940, may serve, therefore, as a base line for evaluating the success with which the very difficult problems of the immediate future will be met.

FOREWORD

These charts and maps are based on data released by the U. S. Bureau of the Census for the year 1940, and are presented in three main groups: Births (identified by series numbers B 40-), infant mortality (IM 40-), and maternal mortality (MM 40-). No charts are presented on stillbirth statistics because of the known deficiencies in the registration of stillbirths. However, one map on this subject (S 40) is included, which shows for each State the extent to which the definition of stillbirth with regard to "period of gestation" and "evidence of life" is in accord with the Model Vital Statistics Act of 1941. On each left-hand page are the basic data for the chart on the right-hand page.

Most of the maps are based on so-called "recorded" figures; that is, they represent births and deaths which were registered as having occurred in the locality. These differ in many cases from "resident" figures; that is, births and deaths of residents of a locality irrespective of the place of occurrence. For data by States the difference between recorded and resident figures is slight. However, when smaller geographic subdivisions are considered, the differences may be very large and therefore four charts showing such subdivisions are presented on a resident basis (B 40-3R, B 40-5R, IM 40-11, and MM 40-12).

The variations in infant and maternal mortality over a period of years (trend charts) are presented on a semilogarithmic scale. The question is often raised why this scale is used rather than the more familiar arithmetic one. The semilogarithmic scale is generally preferred when interest centers in visual presentation of relative (percentage) changes from year to year rather than the basic figures. On a semilogarithmic scale equal vertical distances represent equal *relative* differences, whereas on an arithmetic scale equal vertical distances mean equal *actual* differences. For example, on a semilogarithmic scale a drop of 5 points from 20 would show up as 10 times the magnitude of a .5-point drop from 200, but on an arithmetic scale the two reductions would appear to be of the same magnitude. The semilogarithmic scale therefore affords a visual picture of the percentage changes over periods of time. It is especially useful when two or more curves are presented on the same chart, because it affords an immediate comparison of the relative changes in the curves.

Causes of infant and maternal mortality have been grouped in broad classifications. The International List numbers of the individual causes included in each group are included in the basic data shown opposite the corresponding charts.

Racial classification is given in three categories: White, Negro, and "other races." Mexicans are included with "white," and Indians, Chinese, Japanese, and a residual group of numerically minor races are included with "other races."

Statistics on Negro births by State are limited to the States in which at least 500 such births occur annually. In computing infant and maternal mortality rates for Negroes, only States in which at least 2,500 Negro births occurred in the period are presented because it is believed that rates based on a smaller number of births would not be sufficiently stable even for crude comparisons.

It is hoped that the charts and maps presented here not only will be useful to those interested in Nation-wide statistics on births, infant mortality, and maternal mortality, but that they may suggest plans for analyses of similar data for smaller geographic areas, especially by State departments of health and welfare.

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