

2. “Cohort profile: 1958 British birth cohort (National Child Development Study)”

This profile offered a description of the “1958 British birth cohort” data set, which has been used in a wide range of longitudinal studies, including the one we read for this project<sup>1</sup>. The **base population** contains survivors from an original sample of over 17,000 births in a single week in 1958 in England, Wales, and Scotland. Participants were followed-up by parental interview and examination at ages 7, 11, and 16 yr, by cohort member interview at 23, 33, and 42 yr, and by biomedical assessment at 44 yr.

**Information collected** covered health, education, social developments, inter-generational relationships in health, stabilities, discontinuities, development of social and health inequalities, as well as transitions to adult life of the cohort members.

From the perspective of natural history, **key findings** include mental retardation in childhood would lead to elevated rates of adult psychological distress; childhood obesity will cause adulthood obesity, and is related to social backgrounds and the weight of the parents; childhood chest illness and adult lung disease is due to an asthmatic tendency rather than to impaired prenatal lung development. From the perspective of health and social factors, major findings are causal relationship between maternal smoking and reductions in birth-weight, shorter at age 7, tendency to have wheezing illness after 16, fatter, and fewer educational qualifications; Prenatal, postnatal growth and weight gain are associated with some adult diseases; Parental separation, divorce, as well as the participants’ marital status are associated with risks of psychological distress and problem drinking. Height, emotional development, and cognition development in childhood have effects on adult health. From the perspective of health-related behaviors, socioeconomic differences in adverse growth trajectories involving retarded fetal growth, slow linear growth, and accelerated weight gain have been observed; physical activity, smoking, dietary habits, and alcohol consumption are associated to social class backgrounds, parental separation, unemployment, education level, and SEP.

**Weaknesses** of this data set include lack of ethnic diversity of today’s population; different grow-up environment, where maternal smoking in pregnancy and breast-feeding were relatively common, childhood obesity and teenage drug taking were relatively low. **Strengths** of this data set include large study sample, extensive data coverage, eight ages studied, use of objective measures, simultaneous coverage of physical, cognitive, emotional and behavioral development, disease and functional measures, as well as the combination of genetic and phenotypic information.

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<sup>1</sup> Kariuki SM, Newton CR, Prince MJ, et al. The association between childhood seizures and later childhood emotional and behavioral problems: findings from a nationally representative birth cohort. *Psychosom Med* 2016; 78:620–628.