PART I
ORIGIN AND METHOD OF STUDY

1 The background

On Thursday 29 June 1972 Sir Keith Joseph, then Secretary of State for Social Services, made a speech at a conference for local authorities organized by the Pre-school Playgroups Association. That speech led to more than a decade of studies, of which this book is one.

His actual words need to be remembered:

> *'The Paradox'*: Why is it that in spite of long periods of full employment and relative prosperity, and the improvement in community services since the Second World War, deprivation and problems of adjustment so conspicuously persist? . . . Deprivation is, I know, an imprecise term. What I am talking about are those circumstances which prevent people developing nearer their potential – physically, emotionally and intellectually, than many do now.
>
> *The Cycle of Deprivation*: Perhaps there is at work here a process, apparent in many situations but imperfectly understood, by which problems reproduce themselves from generation to generation. But I am not suggesting that there is some single process by which social problems reproduce themselves – it is far more complex than that. I am saying that, in a proportion of cases occurring at all levels of society, the problems of one generation appear to reproduce themselves in the next . . . . In my view we need to study the phenomena of transmitted deprivation, what I have called the 'Cycle of Deprivation'.
>
> I am hopeful that it will be possible to mount studies that will give us a better understanding of the nature of the 'Cycle of Deprivation'.
>
> As a matter of experience social workers and medical practitioners familiar with history making are well aware that social attitudes and ways of life tend to recur in some families from one generation to the next. But what is even more surprising, this does not always happen, and whether there is a continuity or discontinuity between generations, the mechanism or mechanisms and the pathways of change or otherwise also require exploration and, if possible, explanation. The difficulty comes, however, in setting up a model for study, a model which makes it possible to explore many factors across one or more generations, and to assess the significance

> of physical, psychological, intellectual or social factors. This model must possess valid information on each generation involved and also be able to take into account alterations in social attitudes, economic change and indeed the expectancy which have occurred during the time under review.

As it happened, information of this type was available in Newcastle. A project, designed to collect the facts of health and illness in children during the first year of life had enrolled, as a study group, all children born to families in Newcastle upon Tyne during the months of May and June 1947. Although designed originally only for one year, the cooperation between the families and the workers was so good that it continued until the fifteenth year when the children either left school or continued with their education (Spence *et al.*, 1954; Miller *et al.*, 1960; Miller *et al.*, 1974).

The data of that survey had been carefully preserved and that relating to the cohort still living in the city in 1952 has been used as the basis of the present study. In 1979–80 some 300 members of the cohort were traced and interviewed. They were then 32 years of age and most were parents. The study was, and remains, local in emphasis and must be seen within the context of the City of Newcastle and its immediate neighbourhood of Tyneside and the North-East, although the 20 per cent of families who had moved from Newcastle after 1952 were visited wherever they lived.

The present study: the cycle of deprivation

Following the Minister's speech and the establishment of the joint working party of the SSRC and the DHSS, several studies of 'deprivation' were initiated and many publications followed. The literature on the subject to 1981 was summarized in *Despite the Welfare State* (Brown and Madge, 1982) and accounts of some of the projects specifically funded by the SSRC were brought together in *Families at Risk* (Madge, 1983a). From these publications it is evident that the concept of deprivation means different things to different people. It is thus necessary to state our own position as clearly and precisely as possible.

This study had its origin in a suggestion that the families who in 1952 had shown characteristics described as 'deficiencies in family wellbeing' (Miller *et al.*, 1960: 34–56)

should be traced to discover whether the deficiencies continued into later childhood and adult life. Certainly, if the families could be traced and revisited, we could claim to satisfy the Minister's requirements. Our one shortcoming was that we lacked prospective data regarding the childhood of one spouse in each of the families of formation. But, accepting that difficulty, we thought that we should be able to describe how far children from severely deprived families in the first generation continued to show evidence of deprivation in later childhood, and whether their families did so in 1980.

In 1952 the families were assessed with regard to their potential to provide a happy and stable home for both parents and children. This was in the belief that such homes give children the best chances of developing their potential, first as children and then as adults. Thus, theoretically, if the families in the 1952 survey could be traced and if they could be interviewed in 1980, it should be possible, having adjusted the criteria used in 1952 to the standards of 1980, to describe the change or continuity in family conditions (within limits of our parameters) between the two dates and two generations.

It will be apparent that this study stands or falls by decisions made regarding the data relating to 1952 and by the basic acceptability and soundness of our concepts of deprivation. It was therefore comforting to find that Madge (1983a) in her introduction to *Families at Risk* approached the subject from the same direction as ourselves.

The concept of continuity and our hypotheses

Our study is based upon a belief that the total conditions under which a child lives influence his or her development and functioning in physical, social, emotional and intellectual terms. If this is correct, then family environments lacking the necessary requirements are likely to lead to less than optimal development unless the deficit is recognized and can be remedied at an appropriate time. If not, sub-optimal functioning may then continue into adult life, bringing the possibility that the next generation of children will, in their turn, also receive inadequate care.

In a more strict sense, 'continuity' can be defined as the repetition of the same criteria of deprivation in the next

generation at an equivalent point in time in the life cycle. This concept can be used to study family circumstances both within generations and across generations.

In this study the generations are as follows:

Generation I	The parents of the index children (Red Spot families) (see page 17).
Generation II	The 'Index' children (Red Spots) during their early and school years and their characteristics as adults.
Generation III	The children born to the Red Spots at the time of the interview of this study.

Hypotheses

In formulating hypotheses concerning the cycle of deprivation we needed to identify the frequency of criteria of deprivation, their effects, their continuity or discontinuity from one generation to the next and the mechanism of their transmission. We therefore formed the following hypotheses:

1 Children from families affected by deprivation (in the terms of our definitions) will show an association with poorer social, behavioural and educational functioning during their school years than the children of families not so affected.
2 Children from families affected by deprivation will show an association with poorer economic, social and emotional functioning when adult. This poorer functioning will reduce ability to care adequately for their own children.
3 Thus, from 1 and 2 above there will be a transmission of poorer social, emotional, behavioural and educational functioning from the first to the second and third generations.
4 Within one generation, specific criteria of deprivation will continue to be evident at different points in the life cycle.
5 Specific criteria of deprivation will repeat themselves in the next generation.
6 Multiple criteria of deprivation will have a stronger association than single specific criteria with all types of subsequent poorer functioning.

7 Certain forms of social and family deprivation will have specific and more harmful influences than others.
8 Certain social, family and personal factors will exert protective influences against the effects of deprivation.

The city of Newcastle upon Tyne

This study must be seen against the background of the historical development of the city, its neighbourhood, and the people who have lived, and who now live, therein.

Although the river Tyne was first bridged by the Romans the building of New-Castle, from which the town derives its name, began in 1080 during the consolidation of the North following the Norman victory at Hastings. The medieval town grew slowly but had strong walls and was always important both as a trading centre and as a base for military operations against the North or Scotland. From the thirteenth to the early nineteenth century, the city had a monopoly of coal export to London, yet until the second half of the eighteenth century remained for the most part within its ancient walls. Then, with the impetus of the Industrial Revolution, growth was rapid and continuous and Newcastle became the centre of a highly industrialized community dependent upon coal, chemicals, glass, shipbuilding and armaments. Industry brought great increases in population, met by immigration from neighbouring country districts and other parts of the United Kingdom and Ireland. A population of 28,000 in 1801 became 215,000 in 1901 and 286,000 in 1931.

In common with similar areas of rapid growth in that period, mortality rates were high at all ages, particularly in infancy and early childhood. From the 1870s the birth rate fell steadily, except for short periods in the early 1920s and late 1940s, so that the proportion of children in the population declined, while lengthening life expectancy increased the number and proportion of the elderly. By the 1970s the population structure of the city had dramatically changed from that of the 1930s, with great improvements in general health but with a smaller proportion of children and a larger one of elderly people.

In this century Tyneside has been unfortunate in depending too much on war. The First World War and its aftermath was followed by fifteen years of depression in heavy industry, high unemployment and economic hardship.

From 1936 more work became available and unemployment almost disappeared during the Second World War. At the same time nutrition was improved by the adequate rationing system, and mortality rates, sensitive to better nutrition and care, were lower in 1945 than ever before.

The '1,000 Family Study'

The '1,000 Family Study' can be traced to the early 1930s. In 1931, Dr A.J. Smith, the Medical Officer of Newcastle Dispensary, referred in his annual report to the great increase in poverty, sickness and malnutrition amongst the poorest classes in the city. Reported in both local and national press, this caused concern, and Dr J.A. Charles, the Medical Officer of Health (later Chief Medical Officer, Ministry of Health), asked Dr J.C. Spence (later Nuffield Professor of Child Health), then a physician on the staff of the Royal Victoria Infirmary, Newcastle, to investigate the situation. Spence did this by comparing the medical histories and the physical states of two groups of children under five; one group came from professional families and the other from children attending a Salvation Army Sunday School, a Child Welfare (Health) Centre, or accompanying their mothers, who were seeking advice on their own behalf at the Newcastle Dispensary.

Spence's (1932) conclusions were dramatic and can be summarized. They were that at least 56 per cent of the children from the poorer districts of the city were unhealthy or physically unfit, and appeared malnourished due to infective illnesses under conditions which prevented satisfactory recovery.

In the winter of 1938 Dr Spence's study was repeated with substantially the same results (Brewis, Davison and Miller, 1940). Employment amongst fathers had improved, but two of every three families interviewed spent less on food than the cost of a basic diet. In 1939 a study of infant mortality revealed the local importance of low birthweight and infection as causes of death and also how little was known about them (Spence and Miller, 1941).

In 1946 it was again possible to take up the study of child health. This was based in the new University Department but worked throughout the city with the active cooperation of the Newcastle Health Authority. The question we sought to

answer was: 'What is the incidence and what types of acute infective illness occur in the first year of life in Newcastle upon Tyne?'

The resulting survey was designed to last one year and to record the period from birth to the first birthday of a sufficiently large and representative group of Newcastle infants. In the event, at the end of the first year it continued for a second, then until the children were fifteen, and finally for some purposes until they were eighteen and a half years old. The results were published in three volumes between 1954 and 1974 and provided a bridge between textbooks of paediatrics and manuals of social medicine. The authors hoped that 'this account of our experience over these years will help readers to understand the interdependence of physical growth, personal development, family function and social environment in determining the character of health and disease in childhood' (Miller *et al.*, 1974).

Organization

The study throughout was a joint undertaking of the University Department of Child Health at the Royal Victoria Infirmary, Newcastle upon Tyne, and of the Public Health Department of the Newcastle Corporation. It was only possible because a tradition of cooperation between the Medical College and the City Health Committee already existed and a research team could be formed from the existing staffs of the University Department of Child Health and the Maternal and Child Welfare section of the City Health Department. The medical staff undertook the work as part of their general commitment as departmental members, or after 1948 as Consultant Paediatricians. The health visitors were all volunteer members of the Health Department staff seconded for the purpose.

Three basic problems of organization were involved:

1 the enrolment at birth of a group of infants representing the infant population of the city, which was large enough to establish the incidence of the common acute infections;
2 the selection and training of a team of observers;
3 the development of a technique of family visiting, observation and record-keeping.

The study group was to involve one in six of the births in Newcastle during 1947. Since it was impracticable to isolate every sixth birth, all births taking place during two particular months were taken. May and June were chosen so that travelling and visiting could be done in favourable weather during a time when each health visitor would be required to meet more than 200 new families. This method had some epidemiological disadvantages, but it was necessary to accept what was practical and possible.

Preparation of the community

The outlines of the survey were agreed by July 1946; detailed planning began in the autumn and continued through the winter into 1947. The team met regularly, and records were designed and tested. Since the record was to begin at birth, the help of the city midwives was required for infants born at home, and that of matrons of the private nursing homes, and obstetric and paediatric staffs of the two large maternity hospitals for those born in hospital.

During the autumn of 1946 meetings were held with the domiciliary midwives. The nursing homes and maternity hospitals were visited and the object and design was explained to everyone concerned.

The team met all the health visitors working in the city and the medical staffs of the children's hospitals. Arrangements were made for the study to be notified of hospital admissions and to obtain copies of the notes and the growth charts of the infants who attended the child welfare centres. We knew we were very dependent on the support of the family doctors, and they were approached both through the British Medical Association and also individually.

Enrolment therefore began on 1 May, and by 30 June 1,142 infants from 1,132 families formed the study group. During the first year only four families 'contracted out', but 45 children died, and after removals from the city, 967 families were left. At the end of the fifth year the number was 847, and at the end of the fifteenth year there were continuous records for 750 families.

Records

Following the original plan, the records had been designed only for one year. As each notification of birth was received

a register was compiled, the child was given a number and his or her dossier initiated. All relevant information went into that dossier, the records progressively expanded and ultimately came to contain the accumulated data of 15 years. During the school years several special studies and sub-surveys added to the available information and the end result was a bulky dossier for each child and his or her family. After the publication of the third report in 1974 these records were carefully stored and were available as the starting-point of the present study.

To identify correspondence and notes a small red 'legal' seal was placed on each document. This distinctive mark rapidly became widely known so that soon the children themselves were known as 'Red Spot' babies, a name which has persisted and 40 years later is still warmly remembered almost as a mark of club membership.

As the work proceeded the team became increasingly aware of complexities and uncertainties of family life, and how slowly understanding of families is attained. Patience was as important as observation. In the first five years, although many of the families were badly housed, in other respects they enjoyed material standards better than those of 20 years earlier. There was considerable regard for the health and welfare of children but only too often the families lacked one or more of the essentials required to establish a stable and happy home. To the team, these essentials seemed to be: a sound dwelling of sufficient size; parents who enjoyed a satisfying relationship with each other and were sensitive to the emotional and intellectual needs of their children; and a reasonable family income wisely used.

Family shortcomings

It was necessary to find criteria which would indicate families in which children would be 'at risk'. The data were reviewed and three major groups or categories of deprivation could be recognized, each group containing a number of related factors. These were as follows:

1 *Deprivation* (of parental care), which included a range of situations in which a child was bereft of parental care. This could be temporary or partial, or permanent by separation or death, and could affect one or both parents.

It included disruption of the family by death, desertion or divorce, by illness or parental work.

2 *Deficiency*, which involved the more material aspects of child care and failure to provide adequate food, clothing or suitable sleeping arrangements, or a low standard of personal or domestic cleanliness.

3 *Dependence on society*, which contained families whose degree of breakdown was so extensive that they were a burden to their neighbours and made demands on the social services and financial resources of the community.

These were the families who later formed the major part of the deprived groups of the present study.

The school years

The five years 1947–52 were a time of great social change as the country recovered from war, and important legislation – particularly the 1944 Education Act and the 1946 National Health Service Act – became operative. New houses were built, wages increased, and general living standards improved. Significant advances, particularly in the treatment of bacterial infections, reduced both morbidity and mortality.

In 1952 the children began school and we were still in close touch with 847 families. Routine and emergency visiting continued until the children were seven years of age. However, by the end of the sixth year a change was noticeable: routine visiting was becoming more difficult as more mothers were in paid employment, and it was evident that the incidence of infective illnesses was declining and its nature changing.

From the beginning of the school years the City Education Committee and teachers who had 'Red Spot' children in their classes agreed to notify the survey team whenever a child was absent for more than two days. This notification brought a special visit to the home by the health visitor or a medical member of the team and was of very great assistance over the next 10 years.

After seven years, therefore, the method of data collection changed. Each family had only one routine annual visit, but visits following a request from either family doctor or health visitor continued, as did those when children were notified absent from school. Throughout this time, hospital notes and

school health records were collected. The routine annual visit, made by arrangement with the family, was also made an occasion to seek answers to particular questions on, for example, stuttering, enuresis and age of menarche.

Throughout the school years attention was progressively directed towards the concept of 'performance' which formed the central theme of the third volume and involved several special enquiries and studies, each with an identity of its own yet within the overall project. Thus, studies were mounted in respect of respiratory disease, disturbed behaviour, attitudes to school, scholastic attainments, weekend activities in work and leisure, and secondary education and hopes and ambitions for the future.

Physical growth in height and weight was checked and recorded. A particular privilege was to be able to study the 'contact' of children with the law and to record juvenile court appearances.

Finally in 1966, four years after the collection of other systematic data had ceased, data was obtained on the entry of boys to employment or the results of continued education in those who had stayed at school. All these studies provided facets of 'performance' and were described in *The School Years in Newcastle upon Tyne* (Miller *et al.*, 1974).