

## 4 AIMS AND OBJECTIVES

### 4.1 Introduction

This is an epidemiological and clinical study of the causes and patterns of childhood onset visual impairment in the WB and GS. Data on the causes of childhood blindness in the West Bank and Gaza Strip have not been available because there is no form of blind registration or data collection system. Many of the blind schools are run as charitable institutions and so there is no uniform system of collecting data from them.

The work was carried out between autumn 1985 and September 1987. Blind schools, training centres and residential homes were visited and all individuals and their relatives were examined with the help of the SJOH mobile eye unit. In some instances, home visits were made, especially where a large, extended pedigree was involved. All patients underwent full ophthalmic examination including orthoptic assessment and, when necessary, further investigations were performed at the base hospital. From the total number of approximately 2500 screened individuals, the number of registered cases in this study is 629.

The objectives were both epidemiological and clinical: -

### 4.2 Epidemiological

- 4.2.1 To establish the causes and prevalence of childhood blindness in the population defined above, and compare the data with other countries in the region where similar customs exist (such as Saudi Arabia, Jordan and Lebanon) with different countries, with immobile communities and those establishes economically.

- 4.2.2 To establish from the results any trends in the causes or incidence of blindness in this particular population, and compare it with other works published.
- 4.2.3 To establish the prevalence and degree of consanguineous marriages in the population studied, any regional differences existing between the West Bank and Gaza Strip, the refugee population and the indigenous residents of towns and villages and the hereditary and non hereditary causes; in order to analyse their effects in inherited visual disorders and to compare them with other studies in the Middle-East.
- 4.2.4 To provide recommendations for possible measures to eradicate childhood blindness in the population defined.

### **4.3 Clinical/Genetic**

- 4.3.1 To document, through analysing the hereditary disorders noted, the clinical patterns and the natural history of the important conditions encountered and, in particular, the retinal dystrophies. This is especially the case where several genetic associations co-exist.
- 4.3.2 To study the phenotypes in order to demonstrate the intra-familial and inter-familial variability of gene expression and to corroborate the hypothesis that some of these phenotypes are the result of variable expressions of the same genetic defect, or of the same disorder at different stages of its natural history rather than the result of heterogeneity.

This work, with its detailed genealogy, represents valuable material for the ophthalmologist and the molecular biologist addressing recessive genetic disorders especially as such detailed genealogies are not available in the Western population.