Poliomyelitis Status
In
The World and Egypt an Update

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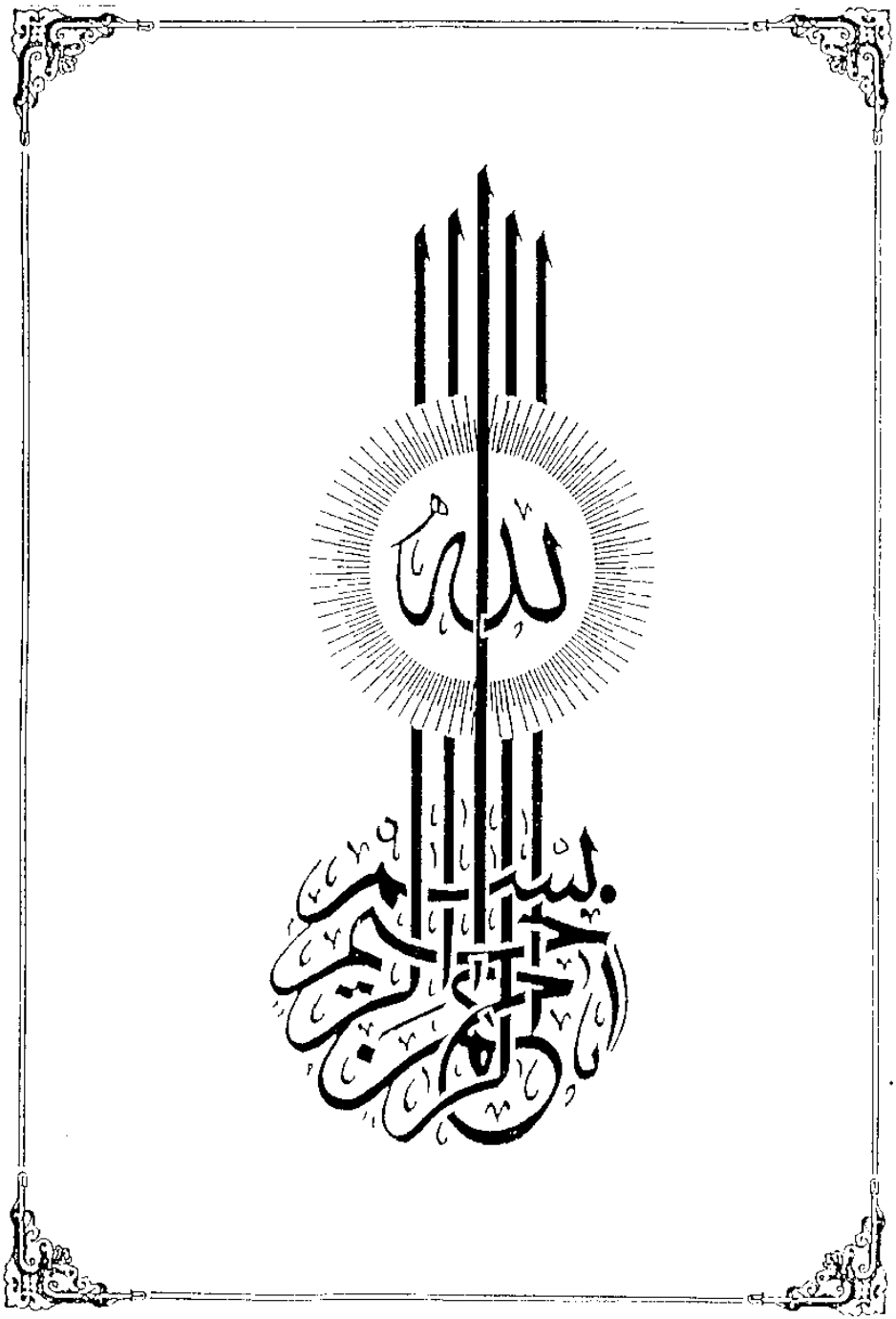

Dedicated to

My Wife

&

My Son

Acknowledgement

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Introduction

Introduction

This decade (from 1989 to 1999) has been declared as a decade for protection and development of the Egyptian child.

Egypt is aiming to achieve polio eradication soon, to prevent every Egyptian child from being crippled and to protect every Egyptian family from suffering the financial burden and psychological stress of having a child crippled by this disease.

The significant reduction of the occurrence of paralytic poliomyelitis worldwide, which followed introduction of poliovirus vaccines in the fiftieth is one of the greatest medical achievements of the twentieth century. Unfortunately despite two efficient vaccines, which have been used world-wide for more than 30 years, poliomyelitis and its sequelae are still a major threat to public health *(Kimpen and Ogra, 1990).*

The varying paralytic consequences have made poliomyelitis a human disease of increasing importance during different decades of the twentieth century in different parts of the world.

So, it has undoubtedly received much attention from epidemiologists.

Control of poliomyelitis as an incapacitating and handicapping disease and even its total eradication has been achieved in countries using either live (Sabin) or killed (Salk) poliomyelitis vaccine *(Melnick, 1978).*

However, there are special epidemiological and other problems connected with the prevention of paralytic

poliomyelitis in developing countries by vaccination. This indicates why the highly effective vaccination schedules of developed countries can at best have only a limited effectiveness in developing countries.

The countries which have used killed vaccine exclusively with considerable degrees of success have been small countries with excellent health delivery systems, with wide coverage reaching ninety (90%) percent or more of the target population *(Rhodes, 1968).*

Sweden for example, was among the highest in the world as regards the morbidity rate of poliomyelitis prior to large scale vaccination *(Böthger, 1981).* Poliomyelitis vaccination since 1958 in Sweden using killed vaccine has been most successful and has conferred one hundred (100%) percent protection.

Comparing the fact that in large countries like China, USSR, USA and many countries of Europe, after mass application of oral Sabin vaccine since 1960, poliomyelitis was controlled to the extent of eradication and the situation in some tropical and subtropical countries like our country. Sabin vaccine has been found to be less effective in inducing antibodies and immunity in children compared to those residing in temperate climates *(Cockburn & Drozdow, 1970).*

The effect of Sabin Vaccine in tropical and subtropical countries is low due to many factors as breast milk antibodies, cellular resistance in the intestinal tract due to previous exposure to naturally circulating polioviruses in the saliva of infants in these areas that inhibit the multiplication of vaccine virus *(Cockburn & Drozdow, 1970).*