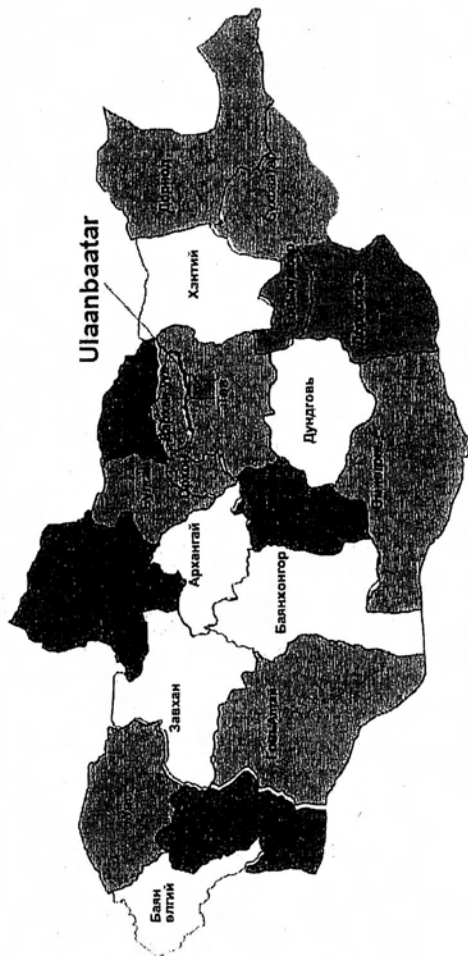


Draft

Second edition



**MINISTRY OF HEALTH, MONGOLIA  
 NATIONAL CENTER FOR COMMUNICABLE DISEASE**



**MULTI YEAR PLAN 2006-2010  
 NATIONAL IMMUNIZATION PROGRAM**

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## INTRODUCTION

### 1.1. Background to the Immunization Program in Mongolia

This is the Multi year plan for the period 2006-2010 developed by the National Immunization Program (NIP) of the National Center for Communicable Disease (NCCD) supported by Ministry of Health Mongolia, WHO and UNICEF and international partners, JICA and GAVI.

**Major milestones** in the development of the National Immunization Program in Mongolia include the following:

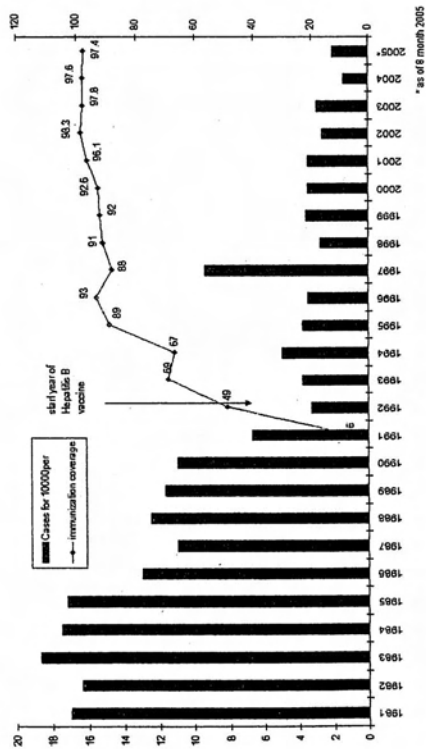
- Immunization started in 1961.
- National Immunization Program implemented since 1993.
- Active surveillance for EPI target diseases started in 1996.
- Immunization Law passed in 2000.
- Established Immunization fund in 2001.
- Established ICC on EPI in 2002.
- Developed MYP 2002-2010.
- Conducted joint financial assessment (MOH, ADB) in 2000.
- Conducted joint EPI review (MOH, WHO, UNICEF, JICA) in 1997 and 2002.
- Introduced AD syringes in 2005.
- Introduced Penta-valent vaccine in 2005.
- 98% of vaccination units were provided with cold chain equipment.
- Implemented Immunization and Safety injection project supported with WHO, UNICEF, JICA, GAVI and Vaccination Fund.
- All coverage rates of EPI-over 96%.
- No cases of measles, diphtheria and pertussis in 2004 and the first 9 months of 2005.
- Poliomyelitis and neonatal tetanus free.

**Major lessons learned** from this long period of implementation include the following:

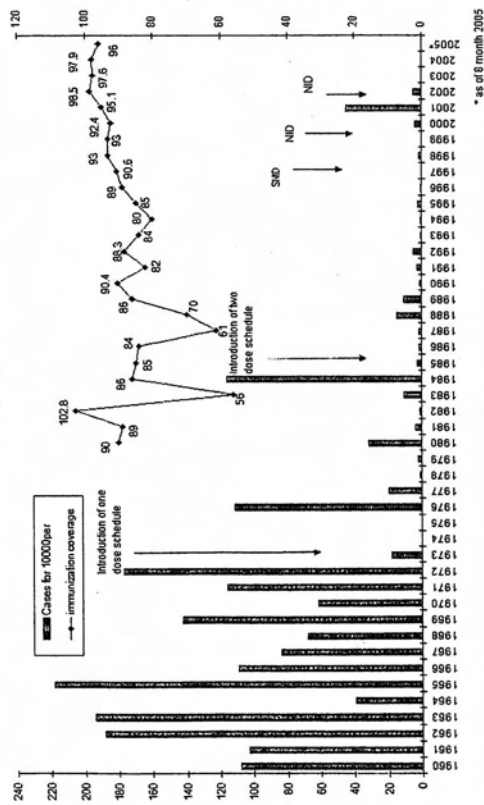
- However, the National average masks low coverage in some remote bag and soums.
- Measles outbreak occurred in every 5 or 6 years.
- High HBaAg prevalence.
- Delay of timely delivery of immunization for the mobile & remote population.
- 15-25 percent of children received immunization through mobile services.
- Low technical capacity for repairs & maintenance of cold chain equipments.
- High vaccine wastage.

- Traditional dependence on partners.
- Continuous increases in program costs resulting from program improvements and expansions.
- High turnover of immunization staff.
- In-regular monitoring and supportive supervision & IEC activities.
- Inadequate laboratory & AEFI surveillance.
- Lack of training bag and sound doctors especially for vaccine transportation, storage and safety injection.

Hepatitis B cases and immunization coverage  
1981-2005\*



Measles cases and immunization coverage  
1960-2005\*



## 1.2. Social and System Barriers to Maintaining High Program Coverage in Mongolia

*Social and Economic Factors* - It is estimated that 36% of the population lives in poverty (Poverty Reduction Strategy Paper) and, although rates of poverty are not increasing, income inequalities have worsened between 1994 and 2000.

Severe funding shortfalls for social sectors have been associated with the transition from a centrally planned to free market economy. Due to lack of funding and loss of external subsidies, health infrastructure has declined in recent years, and shortages and high turnover of staff is developing in rural areas. The decline in the social sectors has been one of the reasons for the rapid migration of populations to the capital city and Provincial towns (Health Sector Master Plan). A gradual process of decentralization is also shifting finance, management and planning responsibilities to the sub national level. This presents program challenges in terms of preparing middle level managers for increased accountability for program performance.

All these social and economic factors pose significant challenges for immunization policy makers and planners, particularly in terms of financing, communication, human resource management and capital investment in immunization systems.

*Geographic and Demographic Factors* - Mongolia has the lowest population density in the world (1.5 persons per square kilometer). There is high population dispersal, resulting in increased costs associated with communication and transport. This poses formidable economic and social challenges to the effectiveness of social sector programs.

However, due to the recent socio economic changes, the country is rapidly urbanizing, with approximately 60% of the population now resident in urban areas. The high internal migration presents significant challenges in relation to registration and tracking of immunization coverage.

Further challenges are presented by the severe climatic conditions in Mongolia, which results in rural and remote populations and service providers being often cut off from road communications during winter disaster periods. The vast distances between aimag and soum centres also add to the economic impact of increasing fuel prices.

*Health System Impacts* - The health system consequences of these social and economic conditions include high recurrent costs, rapid staff turnover and a decline in health system infrastructure (cold chain and transport systems and training and supervision). There is a risk for the quality of immunization program performance, unless significant investments are now made in infrastructure (cold chain, waste management and transport), human resource development (training and supervision) and communication strategy implementation.

## 1.3. The Costs of Immunization in Mongolia and Implications for Health System Development

The cost per child estimated for Mongolia \$33 per child in 2005. This is high on an international comparison basis. There are three main reasons for the high cost per child:

1. Introduction of pentavalent vaccine in 2005 (resulting in an increase of vaccine and supplies spending from \$ 226,000 in 2004 to \$ 817,000 in 2009, which is a 307% increase in vaccine spending)
2. Comparatively low birth cohort of 48,000 (the non-vaccine fixed costs of the program cannot be spread over a large enough population, and therefore the unit costs of immunization will be much higher).
3. Demographic and geographic factors (dispersed populations, vast distances, climactic factors)

This provides an important rationale for increasing program efficiency (see section 9) and undertaking periodic program reviews in order to identify strategies for containing costs, while at the same time maintaining programs to reach the hardest to reach populations.

The cost per capita per immunized child ranges from 60 cents per capita in 2005 to 90 cents per capita in 2008. This can be contrasted with the total state health budget per capita of \$27 per capita in 2005, and reaching \$33 per capita in 2008. This current MYP does not contain any information on cost effectiveness of immunization in Mongolia. However, it is proposed in this MYP that cost effectiveness analysis now becomes an essential requirement for decision making on new vaccine introduction.

It is important to observe that a significant proportion of national immunization program costs (30%) are taken up by the shared costs of the immunization program. The highest proportion of shared health system cost is in the areas of human resources and transport. There are therefore important opportunities that could be taken up in the coming years to use investments such as primary health care training and transport systems as a way of not only benefiting the implementation of the immunization program. These investments could also support of the implementation of the essential package of primary health care services of the Ministry of Health.

The interdependence of the program and the health system also provides the rationale for the NCCD EPI Team and planners to carefully coordinate planning development and implementation with the Health Sector Master Plan and implementation framework.

#### **1.4. Immunization Program Planning in Mongolia 2006 – 2010**

The National Centre for Communicable Disease Control developed a Departmental Plan (2004 – 2010) which included within it a sub program plan for control of vaccine preventable diseases. In 2005, this plan was reviewed in relation to the current situation analysis and the recently developed Master Plan for Health of the Ministry of Health Mongolia.

The Master Plan (2006-2011) of the Ministry of Health Mongolia takes a primary health care and health promotion focus, and focuses on 7 key areas of work including service delivery, support services, communication, quality of care, health financing, human resource development and management. The NIP multi year plan (MYP) has been adapted to match these 7 key areas, in order that the MYP reinforces the national strategic directions, as well as encouraging national support for the directions of the national immunization program. This plan was also reviewed in the context of recently developed planning guidelines by the Global Alliance for Vaccines and Immunization (GAVI). These planning guidelines also enable the MYP to be assessed against the key strategies of the Global Immunization