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ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

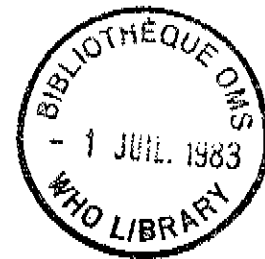
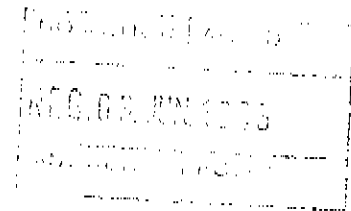
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112 also to be by P. Cassin,
REC.

POSSIBLE PROGRAMME FOR ELIMINATION OF MEASLES IN EUROPE

INFORMAL AD HOC CONSULTATION

Copenhagen, 17-18 January 1983



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Corrigendum

SUMMARY AND CONCLUSIONS

An informal consultation on the feasibility of measles elimination in Europe was held at the World Health Organization (WHO), Regional Office for Europe, Copenhagen, 17-18 January 1983. A list of participants is appended.

The past and present impact of measles in the Region was discussed. Although there is widespread belief in the general public and among some health professionals that measles is a mild illness, it caused thousands of deaths each year in the Region before measles vaccine was available. Even after the incidence has been substantially reduced by the use of vaccine, measles continues to cause hundreds of deaths each year in the Region, not to mention the hundreds of thousands of cases of acute illness with accompanying absenteeism on the part of the child and work-loss on the part of the parent. In addition, acute nervous system complications, pneumonia and otitis continue to occur and may lead to permanent disability. Cases of subacute sclerosing panencephalitis (SSPE), a late complication of measles, also continue to occur in Europe.

Experience with measles vaccine in Europe has indicated that it is highly effective. When given during the second year of life, seroconversion rates >90% are the rule. Its effectiveness in preventing disease in the face of exposure is comparable. Indications to date are that vaccine-induced immunity is durable and probably will be lifelong. Cases of measles in vaccinated individuals result from unsuccessful or faulty vaccination rather than from loss of immunity. In some countries, a second dose of vaccine is given to reduce even further the proportion of vaccine failures. Reactions to the vaccine are few and generally involve transient fever or rash in 5-15% of recipients. More serious complications are extremely rare. Contraindications to vaccination in routine situations are few: compromised immune status (whether due to disease or medication), acute febrile illness (more serious than upper respiratory infection) and pregnancy. Although experience is limited, no evidence of risk to the fetus has been demonstrated when vaccine is administered to a pregnant woman. Problems observed earlier with vaccine failures resulting from fragility of the vaccine can be overcome by proper attention to vaccine handling (the "cold chain") and by using newer, more stable, vaccines (i.e. those meeting WHO criteria). As immunization levels rise, the proportion of cases which occur in vaccinated individuals can be expected to rise. These cases do not reflect waning immunity but are confined to the small proportion of children who did not seroconvert on initial vaccination.

Although there has been general agreement about the desirability of measles vaccination, there has been quite variable implementation of programmes throughout the Region. Vaccine coverage rates ranging from <10% to 99% have been reported from different countries. In general, the impact on measles incidence has paralleled vaccine coverage. Great success in reducing measles incidence has been reported from several countries and studies have demonstrated the highly favourable cost benefit ratio resulting from measles vaccination. In many countries, even further benefits have been realized by use of combined measles-rubella or measles-mumps-rubella vaccines.

Initial success in reducing the occurrence of measles has led several countries to consider elimination of indigenous disease. By this is meant that no case of measles will be discovered which cannot be traced directly (within a few generations of transmission) to a foreign source. This definition falls short of total eradication and acknowledges that periodic importations will certainly occur. At least three countries in the Region are known to have established elimination goals - Czechoslovakia, Finland and Sweden. In Czechoslovakia, measles incidence has been reduced to a level of only 25 cases during the year 1982 (almost all of them imported). Sweden and Finland have only recently begun their programmes (using combined measles-mumps-rubella vaccine). The experience in the United States has been extremely successful: reported incidence has declined >99% compared to the prevaccine era and the total interruption of indigenous transmission appears imminent.

Experience to date indicates that measles elimination is technically feasible and that successful strategies will include at least three elements: achievement and maintenance of high immunization levels (certainly in excess of 90%), effective surveillance and aggressive response to cases.

Implementation of the first element will clearly involve substantial efforts to educate the general public about the dangers of measles and desirability of prevention. The mass media may be useful in this regard. Physicians and other health care providers also need to be reminded of the severity of the disease and the effectiveness of immunization. Organizational endorsement from professional associations (particularly those of pediatricians) can help achieve this as can specific educational devices such as journal articles, slide-sets, etc. Review of immunization status at the time of entry to crèches, kindergartens, schools, etc., is a useful means of assuring high coverage.

Surveillance of disease is a critical element and surveillance programmes throughout the Region will need to be strengthened to minimize the present (variable) degree of underreporting. Measles should be a notifiable disease in all countries. Periodic serologic surveys are valuable to monitor immune levels in the population. Surveillance of programme elements is also important; critical review of programmes on an ongoing basis is essential.

Once suspected cases are detected, prompt investigation and outbreak control measures, including identification and vaccination of susceptibles, are needed. Experience in the German Democratic Republic indicates that outbreaks are smaller and shorter when aggressive outbreak control measures are applied than when they are not.

Since measles is a highly contagious disease and since there is a great movement of people within the Region, a coordinated regional approach to elimination is essential. WHO can play a helpful role in both the development and the implementation of detailed elimination strategies to meet the different situations in different countries. Regional meetings to develop coordinated strategies and monitor progress would be most helpful. Elimination will take differing periods around the Region, depending on the present state of measles immunization and control. In some countries, it should be achieved in a very few years and in most countries of the Region it should be achievable by 1990.

CONCLUSIONS

1. Indigenous measles can and should be eliminated from Europe.
2. Elimination strategies will involve high immunization levels, effective surveillance and aggressive control measures in response to cases.
3. Vaccines used should meet WHO criteria and be handled properly.
4. Major educational efforts will be necessary both for the general public and for health professionals.
5. WHO should play a major role in coordinating regional measles elimination activities.

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