

SUMMARY

D. A. Henderson<sup>1</sup>

The papers and discussions dealing with programme operations have clearly pointed up the future direction which this programme may take and the future would appear to be promising indeed. Certainly, the methods employed in programmes in different countries and in various areas within a given country have been, are and will be diverse. In some areas, the small specialized teams have been found most effective, in others the multipurpose teams; some have found the jet injectors to be indispensable while others have favoured the bifurcated needle; most programmes have vaccinated at assembly points while some have found the home-by-home approach to be most useful; traditional vaccination schedules have been questioned and alternative schedules proposed. However, the most important principle, so vividly illustrated in this session, is that there is no single, universally applicable formula for the conduct of a successful immunization programme or, more broadly, for a programme of disease control or eradication.

The ultimate objective of this programme is to eradicate smallpox and to control measles. A dual approach is employed; the specific attack, based on the interruption of transmission through application of case and outbreak containment measures and the more general attack which consists of the widespread administration of vaccine to raise the overall immunity of the population. We should like to execute these procedures as efficiently and as economically as possible. While a rigid, universal formula for execution of these aspects of the programme would be administratively "tidy", (and such is regrettably too often the dream of international planners), it is abundantly clear that the differences from country to country in terms of existing health structures, in terms of geographical, political and ethnic differences and in terms of available resources, recommend quite different methods in different areas. It is also quite clear that different methods have been comparably successful.

I would hope, however, that none of you have now decided, once and for all, that you have perfected the ultimately efficient methods and techniques. The methods in use will need to be evaluated constantly through assessment and surveillance and examined frequently in terms of costs of the programme and benefits to the population. Modification and adaptation is to be expected and desired. I would hope that this critical examination would continue and that your observations will be conveyed to others elsewhere in the world.

I believe this eradication programme has served to open up new vistas in immunization techniques and in disease surveillance. In considering the future, let us not forget that preventive medicine is far less costly than curative medicine and that immunization, by and large, is the least costly procedure in preventive medicine. In many of the countries in this region, consideration is being given to the possibility of extending this programme to the control of other diseases through immunization. I believe this is sound. In so doing, I would urge, however, that four points be kept in mind:

1. Immunization schedules and practices recommended for use in Europe and North America should be re-examined in their entirety. None of those of which I am aware are fully relevant to the needs and resources of countries in other parts of the world (and, for that matter, I am not so certain that most are optional for Europe or North America either). Vaccination schedules and use should be carefully reconsidered as they pertain to African needs and resources. I am confident that these schedules can and should be radically reconstructed to balance maximum protection and minimum cost.

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<sup>1</sup>Chief, Smallpox Eradication Unit, World Health Organization, Geneva.

2. Vaccine potency must always be a matter of primary concern. I need only note that when the global smallpox programme began, not more than 10% of vaccine in use in endemic countries met requisite standards. I suspect that if we were to check other vaccines in current use, produced in countries where there is no independent national control authority, the result would be far worse.
3. Surveillance is the most vital part of the programme. As the objective of disease control programmes is to reduce disease incidence, some system is mandatory to insure that incidence is indeed being reduced. This seems like a very obvious axiom. As you know, however, millions upon millions have been "vaccinated" with impotent vaccine, for example, in statistically successful programmes while publichealth officials have complacently congratulated themselves as disease incidence rose, either undetected or ignored. Unless some form of surveillance is instituted to determine whether or not results are being achieved, it is doubtful that a programme should be initiated at all.
4. The results achieved to date are not permanent. Newborns enter the population each year; migrants from poorly vaccinated remote areas and from other countries congregate in town and cities. The threat of smallpox remains for all so long as the disease persists anywhere. For this area, you may expect to be particularly at risk for many years to come, particularly from Ethiopia, a country which is recognized to be heavily endemic and which as yet has no programme whatsoever. Thus, while looking to the new, we must not forget the old. Continuing programmes of vaccination are requisite and, more than anything, constant vigilance.