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NEED FOR LEGISLATION IN SMALLPOX

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NEED OF LEGISLATION FOR SMALLPOX ERADICATION

As you know the topic of my paper is "Need of Legislation for Smallpox Eradication". This is indeed a controversial topic, particularly in the context of a country where the percentage of literacy is high, number of educated people is large, and people abhor compulsion by means of legislation. In such countries people consider legislation for this purpose as an encroachment on their liberty, and a slur on their sense of hygiene and general understanding of good and bad. This is more true in case of those countries where improvement of sanitary conditions and the practice of vaccination have led to complete eradication of the disease.

In this paper special emphasis has been laid on the role of compulsory vaccination in the maintenance phase of smallpox eradication programmes, and to evaluate as to what extent the existence of such a provision in the laws of a country would help the vaccination activities to be satisfactory. Importance of reporting, isolation, prohibition of variolation, and obligatory vaccination in epidemic conditions has also been considered in this paper.

Smallpox is a quarantinable disease. The existence of this disease is not only a cause of great concern to national health authorities, but it has international repercussions, at least so far as movements of persons from one country to the other is concerned, because of its contagious nature. The outbreak of the disease in an epidemic form may result in a large number of deaths, and serious disabilities, thus causing loss of manpower and manhours, and creating social and economic problems. Therefore eradication of this disease has always been a cause of great concern to national health authorities and to the World Health Organization, in its capacity as an organization for

improving health conditions of the people of the world and prevention of transmission of diseases from one country to the other, WHO has, therefore, committed itself to assist the smallpox projects in several countries where the disease is prevalent in order to eradicate it from the world within a period of ten years.

There is a great deal of consensus that in order to eradicate smallpox from an endemic country, a sizeable proportion of population, about 80 percent or more, should be immunized by means of vaccination. Such immunization should be maintained and consolidated by regular revaccination, preferably after every three years. In order, therefore, that the population is revaccinated automatically at regular intervals, perhaps compulsion by means of legislation is an effective solution. Dr. F.F. Russell, while speaking in a symposium at the Harvard School of Public Health, forty years ago, stated

"To maintain a constant level of immunity against smallpox in such a population, vaccination must be done regularly on all individuals, at intervals in the early part of life, and revaccination must be carried out on all school children. To this activity there should never be an end until the whole world is vaccinated, and smallpox is completely eradicated; so long as this disease lurks in some backward regions, it may reappear in epidemic form unless all civilized countries continue to vaccinate each new generation".

Russell's assertion in 1929 has been confirmed by the experience of the past years, and smallpox still poses a serious threat to the world.

The need for legislation in general, and the role of compulsory vaccination in particular, has been emphasised on numerous occasions.

Yet there has been no unanimity between the legislators and health authorities in different countries on the question of compulsory vaccination. Both the sides have put forward their respective arguments for and against it. Arguments in favour of the need of compulsory vaccination may be summarized as follows:

First, smallpox is not a disease of an individual, it is a threat to the community as a whole. Therefore, if the vaccine is available, and it is effective and sure, a person should get himself vaccinated. As Cvjetanovic stated in 1959,

"... a citizen who does not have himself vaccinated is committing an offence not only against himself, or the health of his children, but perhaps also against the well being and health of the other citizens and communities".

The second argument which gives strength to compulsory vaccination is the percentage of literacy in a country, and a sense of good or bad. If a population has a large percentage of literate people, some persuasion, either in person, or through media of radio, newspapers, posters etc., may produce substantial and encouraging results in voluntary vaccination. But, when the literacy percentage is not reasonably high, and standard of education is poor then persuasion and propaganda techniques can only be used as a supplement, the main force being legislation.

Third, the role of propaganda and the importance of health education is emphasised by all those who are concerned with smallpox vaccination. But when such educational means have practically failed to be effective, there is no other alternative left except resort to compulsory vaccination by means of legislation. This course of action is

also warranted in case the cost of a propoganda and health education is too high or it requires too much time, especially in case of time-limited^a crash programme.

Another argument which goes in favour of compulsory vaccination is public apathy, social customs, religious beliefs, habits, superstition, and religious taboos. This argument may also be a corollary to the above argument, i.e. percentage of literacy. General education is expected to broaden the mental horizon of the people, to develop their sense of responsibility towards self and others, and their way of thinking. In a large number of countries of Africa and Asia, social customs, religious taboos, and fatalism, greatly impede any vaccination programme. When people are fatalists they believe in whatever will be will be. What's destined will come. Here persuasion does not produce substantial results. In such circumstances people hardly come forward for voluntary vaccination. In fact vaccination as a means of prevention is resisted, and the need for compulsory vaccination becomes all the more imperative.

It is argued that compulsory vaccination is an encroachment on the personal freedom of an individual. This right of liberty creates serious problems which not only impedes progress of vaccination but also becomes a threat to the health of the people at large. When individual interest is considered supreme, and is subordinated to the overall interest of the community, then, again, the course which may help in making a success of immunization is compulsory vaccination. In support of this I may quote J.C. C. Ledingham from British Medical Journal, 1939, 2, 841. He says,

"When liberty becomes anti-social and impedes the application of scientific truth to the improvement of human well-being, then some form of compulsion is the only remedy".

It is generally argued that in case of many other contagious diseases assistance of legislation is not sought. Why, then, compulsion is required in case of smallpox vaccination? The answer is simple. Most of the infectious diseases have specific treatments but in case of smallpox there is no specific treatment and vaccination is the only preventive measure. Moreover, in the case of diphtheria, unlike smallpox, immunity against it is built up gradually through latent infections. Therefore, compulsory vaccination as the only measure of protection against smallpox is required.

As regards arguments against compulsory vaccination, there are some which seem more convincing, while others are merely based on anti-vaccination propaganda from some associations, unauthorized bodies, and even some physicians.

Most of the arguments in this connection are those related to ineffectiveness, or dangers, of vaccination, post-vaccinal complications, respect for liberties of the people, and disappearance of the disease on account of improved sanitary conditions. Such arguments, no doubt, affect public opinion, which, in turn, have their influence on the legislators who have to respect the opinion of their constituents.

However, weighing all the arguments for and against compulsory vaccination, and keeping in view the larger interests of the community as a whole, one may be inclined to agree that the need of legislation for smallpox eradication is called for, and becomes a more effective way of achieving the objectives of immunization against smallpox. Studies in the past have shown that the incidence of smallpox was negligible in places where vaccination was compulsory, whereas the number of cases was very large where vaccination was voluntary.

The above arguments for compulsory vaccination may not only be true when a mass immunization campaign is undertaken but they may equally hold good when the eradication programme, has entered into consolidation phase. We know that vaccination with legislative backing has been made compulsory in most countries, including those which have a high percentage of literacy, where incidence of smallpox is almost nil, or negligible, and where sanitary conditions are quite satisfactory. At present in more than 60 countries legislation on smallpox vaccination is in force and in majority of the countries and territories the attitude towards smallpox is the same, i.e., with few exceptions it is compulsory. There are a number of differences in the regulations of various countries in this respect, i.e., age of primary vaccination, compulsory primary vaccination followed by voluntary re-vaccination, compulsion for certain groups or specified areas, compulsion for school entry, etc. However, exemptions from compulsory vaccination is allowed mostly in cases of medical contra-indications.

Now, when all this has been said, a few questions arise in my mind, some of which have been, more or less, answered but in order to raise discussion, I put them before this gathering.

- (1) Does compulsion affect increase in number of vaccination?
- (2) Is there any decline of smallpox incidence in the countries with compulsory vaccination as compared with those countries where vaccination is voluntary?
- (3) Will compulsory vaccination be satisfactory if health education is neglected for any reason?
- (4) In maintenance phase will it be enough if primary vaccination is made compulsory, but it is followed by voluntary revaccination?

- (5) If compulsory vaccination is enforced ONLY in epidemic condition, can it cover the requirements of a smallpox programme in its consolidation phase?
- (6) Is it necessary for smallpox-free countries to make primary vaccination and revaccination compulsory?
- (7) Will it meet requirements of a smallpox programme under maintenance phase if compulsory vaccination enforced only in specified areas, or in specified groups in the country?
- (8) Exemptions provide an opportunity for people to escape vaccination. What measures, or standard, for grant of exemption, should be adopted so that only genuine cases may get exemption from vaccination?
- (9) What kind of penalties, in the context of developing countries, should be imposed in case a person does not get himself vaccinated?

When we agree that compulsory vaccination is needed for smallpox eradication then we come to other important aspect, i.e. reporting system. Reporting in a smallpox programme should be prompt. When a suspected case occurs it should immediately be reported to the health authorities concerned. The disease being contagious immediate isolation of the case is important and compulsion is also required here. If this care is not taken, the spread of disease to others is possible.

Legislation on prohibition of variolation is required as it is scientifically approved that variolation is not a proper way of immunization. When compulsory vaccination is adopted as a protective measure then, in fact, the need of an outdated and unscientific way of protection through variolation (which also carries dangers in its fold) should not be allowed and for this prohibition legislative

backing is also required.

To sum up, legislation for compulsory vaccination, both in the course of attack phase of a mass campaign or in consolidation period of a routine programme either in smallpox endemic countries or in non-endemic countries is needed. Such compulsion should be kept in force not only to combat the anti-social attitude of certain groups of population and the apathy of the other groups but to mitigate the lack of success in health education and of propaganda efforts and, definitely, to obtain a high level of immunity, enough to eradicate the disease from all over the World.

I also suggest to the participants to consider the possibility of a standard legislation for smallpox vaccination to be recommended to the health authorities in different countries.

Thank you.