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MAINTENANCE OF VACCINATION
ACTIVITIES BY LOCAL BODIES IN
URBAN AND RURAL AREAS.

BY

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By Local Bodies, we mean Divisional Councils, Municipal Corporations, District Councils, Municipal Committees, Tehsil & Town Committees. Under Basic Democracies notification, Local Bodies are responsible for the control, treatment, and management of epidemics in their respective areas. Although the Provincial Governments maintain Departments of Health in their structure but these departments have got only supervisory and advisory powers on the health activities of the Local Bodies. At times when the situation gets out of control the Provincial Governments come into action and impart advice-assistance- and technical help. Some of the districts in West Pakistan were threatened by an epidemic of cholera in 1960, 1961 and at these occasions the Provincial Department of Health provided Epidemiologists-Physicians - Nurses - and Medicines both Preventive and Curative to the Local Bodies involved in the Anti Epidemic activities. Lahore is a metropolitan city and due to the Headquarter of the Provincial Health Department, the Corporation of this city enjoys the privilege of Provincial help and guidance even at minor episodes of epidemics.

Small Pox is one of the persistently major problems for disposal. In temperate areas the disease is not so common

during the summer months, but the incidence of Small Pox is heavy during spring and winter. Nomadic tribes from the North West Frontier and hilly districts of Dera Ghazi Khan migrate to warmer places of Central Zone. By experience we have observed that 'Powindas' of Afghanistan and Local Nomadic tribes of 'Barar' and 'Sansi' are the ever ready agents for the dissemination of disease in the Province. Fortunately the 'Powindas' have been ordered to obtain Health Certificates, before entry in Pakistan, but the problem of local nomads remains unsolved. They have got a hatred and dread against vaccination. They hide Small Pox cases and let their fierce dogs loose on the vaccinators who go for the detection of cases and vaccination in their encampments.

Like all other contagious diseases the prevention of Small Pox, is the duty of Local Bodies. It includes vaccination, early detection of cases, investigation of the sources of infection- isolation and prompt treatment. These measures become easy and practicable in the case of small-pox as the preventive vaccination provides better immunity as compared to other infectious diseases. Detailed epidemiological investigation of all cases as to the reasons for their occurrence and the means by which they are being spread can be one of the most effective instruments to provide continuing guidance and direction to the vaccination programme. An out-break, however small, demands a full critical review with appropriate revisions of the programme and immediate action.

The programmes for the control of epidemics are always extensive and some times costly, at times they get beyond the reach and limits of Town Committees and Local Councils. The developed countries of the World spend gigantic amounts of money on surveillance e.g. the United States of America spends US \$ 3.8 million.

These sums of money appear to be very high as compared to the financial position of our country and we have to add our energies and untiring efforts to reduce the cost, which we cannot afford.

Quite recently the W.H.O. extended its good offices towards Pakistan and expressed its intentions of sponsoring Small Pox Eradication Projects in the country. As Health Officer of Lahore, I had the privilege of supervising Eradication Campaign in the city of Lahore. We were advised by the W.H.O. experts assisted by the Provincial Department of Health and the Lahore Municipal Corporation provided finances staff and its other resources for this purposes. According to the plan the estimated population of 2 million persons of Lahore was to be vaccinated by 200 vaccinators in 75 days. They were to receive a 15 days training and practice of the multiple puncture technique, before the start of the actual work. Thus the entire work was spreaded on a period of 90 days and the Corporation allocated Rs.1,00,000/= (i.e. about US \$ 21,000/=) and its staff both operational and supervisory. Before getting into details of the Eradication Project, it would be more appropriate, if I take the liberty of apprising you of the previously existant vaccination programme in Lahore. The city is divided into 60 electoral wards and a full time vaccinator for a group of two wards. The vaccinator is also a birth and death registration agency for his area and is thus familiar with every birth and is expected to vaccinate the new borns within 3 months period. In this way 30 static and 11 mobile vaccinators were almost vaccinating every new born child of the city. I have got a graph to show you the vaccination -

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primary and re-performed in Lahore since 1952 :

Year	Primary Vaccination.	Re-Vaccination.	Total	Cases	Death
1952	44216	289423	333639	80	37
1953	47764	349907	397671	103	26
1954	43179	250367	293546	16	6
1955	47065	373152	420217	111	52
1956	48236	381601	429837	12	5
1957	50209	326314	375523	16	4
1958	505406	844085	902631	190	68
1959	50516	324873	375389	75	11
1960	45812	265430	311242	38	6
1961	53094	505417	558511	69	12
1962	57017	803487	860504	64	19
1963	57880	425124	483004	12	4
1964	55895	328330	384225	18	n6
1965	62015	479889	541904	10	-
1966	62860	1140400	1203260	98	14
1967	67031	778911	845942	133	9
1968	61451	402437	463888	6	1

It can be appreciated from these figures that the vaccination work was extensively performed in the years 1958, 1962, 1966 and 1967. The city was threatened by province wide out-break of Small Pox in these four years and the second graph about the incidents of cases can tell you that there were 190, 64, 98 and 133 cases of Small Pox occurring in these years, respectively. By the extensive vaccination performed by a skeleton staff of 41 vaccinators the progress of the disease was checked. But this can only be done by extensive hard work and continuous supervision. In our case not only the field staff, but the sectional heads had to put in a seven days week at the rate of 18 hours a day, and this can be very good example for the Local Bodies who cannot afford heavy expenditure for their Small Pox Eradication work.

The Small Pox Eradication Project in Lahore was started on the 9th June, 1959 under the direct supervision of an outstanding epidemiologist, Dr. Nazir Ahmad, Joint Secretary Health, Government of West Pakistan and the assistance of Dr. F. Adibzadeh, W.H.O. Advisor in Small Pox, and the entire

city was covered in a period of 60 days. The graphic representation of the work will show you the daily out put and the objectives thus achieved. The Eradication Project has been extended to other districts of the province and it is expected that by the close of this year most of the West Pakistan will be vaccinated against Small Pox.

The biggest difficulty in a successful campaign is the ignorance of masses their taboos and local myths. Before launching a campaign or even for routine surveillance, education of the masses about the dread of disease and efficacy of vaccination is a must; and without health education the public cooperation is very difficult to obtain

Besides preventive Health Organization, there are Malaria Eradication, B.C.G., and Family Planning Teams working in the country. These teams can be utilized for Health Education of the public and they can also serve a useful purpose in the early detection of cases. Family Planning workers go for home visiting, and if trained they can also impart vaccinations. By putting these agencies at work, we can obtain a lot of extra workers without spending extra sums of money.

The Basic Democracies system is another useful organization in West Pakistan. Since there is one Basic Democracy Member for every 1,000 population, therefore, these members can be of great help for the Small Pox Eradication. They can be utilized for motivation - surveillance and detection of cases.

We have very lately received a Provincial Ordinance about the Small Pox Vaccination, in the Province of West Pakistan. ~~Re-vaccination, in the Province of West Pakistan, has~~ become compulsory by this Ordinance, and is going to be of a great help for Local Bodies in vaccinating population of their areas. In an educated and well advanced city like Lahore, we faced bitter opposition at places and even man handling was reported at certain occasions.

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It has been estimated that one vaccinator can vaccinate about 100 persons a day, during Eradication Campaigns. But in Lahore we were able to obtain better results and each one of our vaccinators averaged 140 vaccinations a day. This speed is difficult to maintain for purposes of surveillance.

The requirements of total eradication are :-

1. Mass Vaccination Campaign ; and
2. Subsequent Surveillance.

Once a community has been vaccinated, the immunity is expected to last for three years, provided a standard W.H.O. approved vaccine is used. People come from outside and the residents remain on move. In this way even after a 100 percent vaccination chances of imported cases of Small-Pox in a community cannot be totally excluded. For this purpose the campaign should be followed by surveillance work.

In Lahore, our scheme for surveillance and maintenance is that one Medical Officer, who will work under Municipal Medical Officer of Health, will be incharge of 'Small Pox' Unit' and supervisor of the whole scheme. Under him, there will be two sections i.e. Maintenance and Surveillance. One Superintendent Vaccination will take the charge of all maintenance activities and under him there will be six Assistant Superintendent Vaccinations. Each of the Assistant Superintendent Vaccination will be responsible for the functions in 10 Union Committees. One vaccinator will be assigned to one Union Committee and he is supposed to vaccinate 30-40 persons per day. This means that about 1/3rd of the entire population of the area will be covered in a year.

This daily vaccination will include all new births, immigrants, new comers, floating people and, of course, all routine re-vaccination which is now compulsory, according to the amendment to the vaccination ordinance of 1958.

Surveillance activities i.e., case detection, epidemicological investigation, discovery of the sources, isolation, and other preventive measures including vaccination of contacts, are the most integral part of the scheme. The section will consist of a team of 5 vaccinators called 'Fire-fighting' or 'Emergency Team' supervised by a qualified and well-trained Sanitary Inspector.

In addition one statistical assistant and a senior clerk will be required to keep statistical data and vaccination record.

According to this scheme it is anticipated that the entire population of the city will be vaccinated - revaccinated in the cycle of every three years.