



EXECUTIVE BOARD

Seventy-fifth Session

PROVISIONAL SUMMARY RECORD OF THE SECOND MEETING



WHO Headquarters, Geneva
Wednesday, 9 January 1985, at 14h30

CHAIRMAN: Professor J. ROUX

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Note

This summary record is provisional only. The summaries of statements have not yet been approved by the speakers, and the text should not be quoted.

Corrections for inclusion in the final version should be handed in to the Conference Officer or sent to the Records Service (Room 4013, WHO headquarters), in writing, before the end of the session. Alternatively, they may be forwarded to Chief, Office of Publications, World Health Organization, 1211 Geneva 27, Switzerland, before 6 March 1985.

The final text will appear subsequently in Executive Board, Seventy-fifth session: Summary records (document EB75/1985/REC/2).

SECOND MEETING

Wednesday, 9 January 1985, at 14h30Chairman: Professor ROUX

REPORT ON MEETINGS OF EXPERT COMMITTEES: Item 4 of the Agenda (Document EB75/3) (continued)

Evaluation of certain food additives and contaminants: twenty-eighth report of the Joint FAO/WHO Expert Committee on Food Additives (WHO Technical Report Series, No. 710)

Dr EL GAMAL stressed the importance of evaluation of food additives and contaminants for the assurance of food safety. The report showed that WHO and other organizations were increasingly involved in efforts to maintain the level of human nutrition and provide protection against harmful preservatives, colouring substances and other additives. In section 2.4 of document EB75/3 it was stated that only a few scientific institutions were available to undertake the necessary tasks; that was because of a lack of human and financial resources. He asked what method was followed by WHO, in cooperation with other organizations, to ensure that the Expert Committee's recommendations were made available to as many individuals and governments as possible and that help was provided in assuring the safety of the additives and colouring substances used. Welcoming the fact that three expert committee meetings were envisaged, he expressed the hope that reports would be prepared indicating procedures based on scientific recommendations, together with an indication of field activities to be pursued.

Dr GARDNER, welcoming the report, said that the evaluation of food additives and contaminants was a valuable continuing project. The results of the meetings of the Joint FAO/WHO Expert Committee on Food Additives provided internationally recognized opinions on safety, which in turn afforded a basis for international agreements on the use of food additives and limitations on contaminants. The collaborative effort should be continued.

Dr BORGONO said that he was concerned about the epidemiological criteria used to reach conclusions concerning certain contaminants. Lengthy periods of observation were required to arrive at such conclusions, and it was therefore important to establish certain criteria or to authorize the use of substances on a temporary basis only. While in some cases an apparently favourable result had subsequently proved unfavourable, there were other cases in which certain toxicological information might initially indicate that there were dangers, particularly in animals, and it was subsequently found that there was no strong evidence to that effect. He would appreciate the Secretariat's comments on the basic elements advanced by the Expert Committee, which were extremely important for many governments in determining the authorization or banning of use of certain food additives, or the elimination of certain contaminants emanating from packaging, for example.

Professor LAFONTAINE, emphasizing the importance of the report and the need for WHO to continue its efforts in the field of contaminants and food additives, said that he could not fully agree with the previous speaker's remark concerning products that had been shown to be dangerous in animals and might not prove to be dangerous in man; he could never envisage the use of a substance that had, for example, proved carcinogenic or teratogenic in rats or mice. Consideration might be given to the position to be adopted towards products shown to be mutagenic and showing differing results in carcinogenicity tests because of differing resorption capacities from one animal to another.

The CHAIRMAN, referring to the future activities of WHO and FAO, said that the type of work under discussion should obviously be continued as a permanent operation. It would be essential to maintain a constant watch over the marketing of new products and packaging material. Future studies would require increasing sophistication. Packaging, for example, could not be studied simply on its own merits, but must be considered in relation to its contents. One that might be harmless when containing water might produce a toxic substance if it contained vinegar, for example. Future activities in that field were extremely important. The Expert Committee had rightly stressed the need to monitor constantly the work carried out and to make available any information obtained.

Dr REID asked whether recommendation 2 in section 7 of the Expert Committee's report (that WHO should consider convening a meeting of a group of experts to prepare a unified

document on the issues discussed in the context of bringing the methodology for testing and assessing chemicals in food up to date) was acceptable to the Director-General, and whether any idea could be given of the time at which the meeting might be held and when it might report.

Dr VETTORAZZI (International Programme on Chemical Safety) welcomed the comments of Board members. Referring to an observation by Dr Quamina concerning the participation of women in expert committees, he said that a woman food toxicologist, Dr MacGibbon, had acted as Rapporteur for the Joint FAO/WHO Expert Committee on Food Additives, but that her name had had to be listed under the Secretariat in the absence of permission from her Government to place her name on the list of experts.

Dr El Gamal had raised an important point concerning the implementation of the Expert Committee's recommendations. The Expert Committee was unfortunately limited to making recommendations concerning toxicology and the use of certain additives. It could not go further into the implementation strategy beyond advocating that Member governments should include such recommendations in their food laws and registration patterns. He welcomed Dr Gardner's observation that the work should continue, and the comment by Professor Roux as to the permanent nature of the operation, which was well demonstrated by the fact that the Expert Committee had been in existence ever since 1956. The endless operation concept meant that a great deal of work was ahead.

Referring to Dr Borgoño's comments, he pointed out that the Expert Committee's report was merely a summary of its work. A long set of monographs published separately under the WHO Food Additive Series clearly showed the rationale of the decisions, particularly regarding the methodology used to arrive at an assessment of certain food contaminants. Toxicologists understood that one of the most important yet weakest points was the extrapolation of animal data to the human situation. It was hoped that developing recommendations based on experimental toxicology would be relevant to the real human condition. That exercise was of a strictly preventive nature. It could be seen that there had been little indication of human outbreaks over the years of functioning of the Expert Committee, possibly because Member States had taken its recommendations seriously.

Referring to Professor Reid's comments, he said that the operation of updating methodology for testing and assessing chemicals in food was a complex one, and was being sponsored by the International Programme on Chemical Safety in implementation of a recommendation repeated by the Expert Committee on several occasions. It was essential to try to bring the assessment of food additives and contaminants into line with advances in toxicology. It was hoped that a substantial advance would have been made in the ongoing exercise by the time of the next meeting of the Expert Committee, when it was proposed to submit a finalized draft outline of that updating exercise.

WHO Expert Committee on Rabies: seventh report (WHO Technical Report Series, No. 709)

Dr EL GAMAL observed that the report dealt scientifically and empirically with a topic that was among the most acute public health problems. Such reports enabled WHO to encourage developing countries to tackle the problem. That could best be done through primary health care, whose objectives included public participation and health planning and cooperation in all sectors. Much progress was being made in the field of vaccines. The problem of rabies required the full attention of all concerned. It was essential to find the most effective vaccines possible to provide relief for sufferers and prevent new cases. All governments and institutions should cooperate with WHO in seeking to control the disease, particular attention being paid to rural areas. Regional offices should draw attention to programmes either by direct contact or through the regional committees. He referred in that connection to the zoonoses control programme in the Eastern Mediterranean Region - a programme that deserved every support.

Dr SUNG WOO LEE welcomed the informative and concise summaries in document EB75/3. The Expert Committee on Rabies was to be commended on its report, which deserved the Board's full approval. The new section 10, on national programmes for control of rabies in dogs and other domesticated animals, would help health authorities to follow immediately the managerial guide for the initiation and step-by-step development of national rabies control programmes.

Dr MAKUTO commended all concerned on a technically sound report which, however, pointed to a disquieting epidemiological situation in developing countries, where control of human

and canine rabies had become extremely urgent. Perusal of Annexes 6 and 7 showed that the centres responsible for international surveillance of rabies and for dissemination of information on the disease, as well as the collaborating centres for reference and research on rabies, were mainly to be found in Europe and North America. It might have been useful if the Expert Committee had recommended that such centres should be established, at least at the regional level, in the developing countries. He would welcome an indication from the Secretariat or from a member of the Expert Committee as to whether such establishment was not considered a priority.

Professor BAH said that in recent years his Government had been taking steps to destroy stray dogs; whenever such measures had been relaxed the number of cases of rabies had increased.

Thanks to FAO, veterinary antirabies vaccines were being produced at the Institut Pasteur in Conakry; they ensured protection for six months. In that connection he noted that progress had been made, since the report referred to vaccines giving two years' protection. He asked for information on the situation with respect to oral vaccines. He had used vaccines emanating from various countries, and their quality appeared to vary; laboratories were needed to control the quality.

In the bush there was the problem of determining which wild animals were responsible for contaminating dogs or other domestic animals. There were two types of rabid dogs - those that became aggressive and attacked humans and those that did not do so. Virological studies were needed to look into that matter.

Rabies was a serious public health problem in Africa, where vaccine was a costly burden on the health budget, and transport and conservation were difficult. Efforts must be centred on prevention, monitoring and control of the disease. Primary health care units had a role to play in prevention and the radical method of destruction of stray dogs must be applied at the village level until vaccine became widely available, since many lives could thus be saved.

The Expert Committee's report should be given wide distribution.

Dr BORGONO noted that, although the knowledge required to control rabies was available, the disease continued to constitute a major public health problem in many countries, particularly in developing countries. The Expert Committee's periodic evaluations of programmes, strategies and specific technical aspects were therefore extremely important.

Of particular value was the recommendation concerning the use of monoclonal antibodies for rapid diagnosis. It was evident that the vaccines which had proved experimentally to be most effective particularly in reducing the number of doses needed for treatment were still inadequate, even though clear instructions were given for their use. More research was therefore required, and the experience gained with animals might be helpful. Complications arising out of the use of antirabies vaccine in human beings might be popularly interpreted to mean that the measures taken had failed, so anything done to achieve progress in that connection was most welcome. In any case the Expert Committee, with its highly qualified and geographically balanced membership, was doing some extraordinarily important work.

A rabies eradication programme was under way in the Region of the Americas. In some countries the disease had already been eradicated, while in others only wildlife was infected, in conditions which were very difficult to control. In such cases epidemiological and other forms of research were especially important. Countries that were free from rabies were aware that their wildlife could be infected through the ecological chain of transmission. However, the studies that had been made so far were insufficient to pinpoint the particular sources of the disease, even though the animal species that might be suffering from it had been identified.

The most important recommendations for WHO were 19 and 20 - urging Member States to develop step-by-step national programmes of rabies control, and urging governments, industries, and bilateral and multilateral agencies of technical cooperation to support the WHO programme for the control of human and canine rabies. The basic measures already known were sufficiently effective. However, the emphasis should be placed on well-conducted permanent control programmes rather than on emergency programmes designed to cope with isolated outbreaks, which naturally caused people to panic.

Dr BELLA agreed with Professor Bah that rabies was a public health problem in Africa. Even the city of Abidjan had a rabies treatment centre caring for some 60 persons a day. The fluorescent antibody test was known at the centre, and many different vaccines were used. However, he had never heard of an oral vaccine for rabies before, and he would like to have some further information on the subject so that he could, if necessary, arrange for supplies to be procured.

Professor LAFONTAINE said that he was very disturbed by the suggestion concerning the administration of attenuated oral vaccine to eliminate rabies in its natural reservoirs, since it was too early to ask countries like Senegal or Zambia to use vaccines to protect wild animals at a time when children were dying of rabies in the street. Research on the subject should, nevertheless, be continued.

Dr XU Shouren said that in most developing countries rabies, and in particular canine rabies, was a widely prevalent disease which was still spreading. Consequently, urgent measures should be taken to control it. The first step should be to secure the effective operation of primary health care services, as well as the active collaboration of governments. In addition, further research should be carried out with a view to developing more effective and easily applicable canine vaccines with the aim of making all dogs immune to the disease. That would entail the elaboration of a rapid and simple method of checking the period over which immunization was valid.

Protection against rabies could normally be provided only after an attack by an infected dog had actually taken place, and it was difficult to ensure that the victim could receive an immediate injection of vaccine or serum. The effectiveness and durability of antirabies vaccines therefore needed to be improved. WHO should propagate a simple technology for producing high-quality vaccines and provide antigenic strains from tissue culture for immunization purposes. There was also a need to establish standards for checking and evaluating the effectiveness of vaccines in man. Research on the epidemiological surveillance of canine rabies should also be strengthened, and popular education should be improved so as to increase public awareness of rabies and to enable people to know what action they should take when they had been bitten.

Dr REGMI said that WHO should give special attention to rabies, which was one of the main public health problems in developing countries.

Although the production of nerve-tissue rabies vaccines from the brains of adult animals had been discontinued in some countries, in Nepal the production of such vaccines was just about to start. If the production of nerve-tissue vaccines was going to be discontinued, WHO should not encourage their production and should help countries to produce cell-culture vaccines.

In countries like Nepal (to which WHO had sent an expert to prepare a project proposal for rabies control) it was extremely difficult to destroy dogs, as well as jackals and foxes in high mountain areas; the importance of prophylactic and post-exposure use of vaccines in such circumstances could not be overemphasized. Governments should promote adequate health education for the control of rabies. A high-quality, easily available and cheap vaccine appeared to be the key element.

Professor JAZBI said that the Expert Committee was to be congratulated on its detailed report, which was highly educational and extremely useful for countries where rabies was a problem. He fully supported all the recommendations made in the report, and hoped that it would be widely circulated. The annexes might prove very helpful when countries needed specific information and guidance. The body of the report described step-by-step planning procedures for instituting a rabies control programme, in addition to recommending that WHO should encourage studies designed to reduce the number and volume of injections needed for post-exposure immunization and to lessen complications and lower the cost of vaccination. It was to be hoped that such studies would be initiated in an appropriate institution as soon as possible.

He was pleased to note that the WHO Programme for the Control of Human and Canine Rabies had recently received support from AGFUND and the Swedish Save the Children Fund for the implementation of joint projects with the Governments of Ecuador, Sri Lanka, and Tunisia. The donor agencies were to be thanked for their gesture, and he hoped that more funds would

be forthcoming for similar programmes in other countries. In that context, the Board might wish to know that seven South Asian countries, including Pakistan, were collaborating in health projects in which one of the priority areas was rabies control. A specific plan of action was being drawn up by a meeting of experts in Nepal. If funding became a problem, approaches might be made to relevant organizations.

Dr GARDNER said that the seventh report of the WHO Expert Committee on Rabies provided an excellent overview of the international rabies situation and effectively updated the previous report.

In section 2, which dealt with advances in rabies research and summarized the most recent developments in rabies molecular virology, the paragraph on monoclonal antibodies presented a somewhat oversimplified picture of their utility and conflicted with some of the currently available data. According to studies made in the USA isolates of rabies virus from infected bats did not fall into a single group, but showed a great diversity. In addition, monoclonal antibodies did not always differentiate wild virus from fixed virus. The wild strain isolated from foxes in some parts of Europe was identical to the ERA strain used for the immunization of animals.

Section 3 on the diagnosis of rabies, gave an excellent overall view of the present position. With regard to the paragraph on monoclonal antibodies, it should be noted that the technique concerned was also being used in humans suffering from rabies, especially when there was no known history of exposure, in order to classify strains of rabies virus isolated according to the species of animal from which the virus had originated.

In section 8, on the prevention of rabies in man, it was recommended that sera from human subjects should be collected three to four weeks after pre-exposure or post-exposure vaccination and tested for antibody titres. In the USA routine serum testing was specifically not recommended after either pre-exposure or post-exposure vaccination, except when rabies post-exposure prophylaxis was administered to a person receiving corticosteroids or other immunosuppressive therapy. That was largely due to the uniform use of only human diploid cell rabies vaccine and to the recognition that adequate antibody titres were uniformly produced when that vaccine was used for pre- or post-exposure prophylaxis in accordance with the recommendations.

The potential role of interferon in the treatment of rabies should probably have been discussed in the Expert Committee's report. Although there were conflicting opinions as to the efficacy of interferon in the treatment of rabies, most data from pre-clinical animal studies demonstrated that interferon had a positive effect when used concurrently with rabies vaccine (HDCV). No results of human clinical trials were yet available, but in the USA the National Institutes of Health had supported a clinical trial of interferon in conjunction with human encephalitis. The resulting document, with its global perspective, would certainly form a valuable addition to the reference library of any person who dealt with rabies on a regular basis.

The CHAIRMAN, speaking in his personal capacity, recalled that Dr Makoto had pointed out that all the reference centres were in Europe or the USA, whereas rabies was most prevalent in the developing countries. Nevertheless, it should be borne in mind that in Central and Western Europe rabies had taken on a completely new but extremely important aspect. In France it had been necessary, until 1984, to examine and slaughter 200 000 cattle and sheep, and examine their brains; 75 000 of them had been found to be infected by the rabies virus. In fact, rabies had reappeared after an absence of 37 years and was advancing at a rate of 40 km per year. It was one of the rare cases in which the mathematical models which had been prepared before the development of the epidemic had been rigorously verified by experience. In view of that situation, further thought needed to be given to the solutions that ought to be applied.

He was unable to agree with Professor Lafontaine's views on oral vaccines. The new circumstances prevailing in France suggested a need for the application of oral vaccines in wild animals. The rural habitat and the rural economy had been modified, with the result that wild animals, particularly foxes, were concentrated in areas which had previously been either populated or under cultivation. However, as the result of a substantial campaign to vaccinate domestic animals, cattle and sheep - and, of course, human beings in cases of risk - no case of human rabies had been recorded. Nevertheless, the new epidemic needed to be carefully monitored.

Vaccines prepared from human diploid cells had proved their efficacy in man, but that did not mean that research should not be carried out to find other vaccines of even higher performance. To mark the hundredth anniversary of the discovery of the antirabies vaccine, technologically outmoded vaccines should be courageously cast aside. Section 10.4 of the report, on international cooperation, was particularly noteworthy, since the problem could not be solved, either for the industrialized or for the developing countries, without intensive international cooperation aimed at developing research to assist all forms of field work and preventing dispersion in all senses of the term. The latter point was important because at a given stage it was too difficult to apply, in the field, all the hypotheses which might occur in connection with the development of new vaccines, new cells and virus strains.

Professor LAFONTAINE explained that he was by no means opposed to research on the development of an oral antirabies vaccine. However, to attach such decisive importance to it at the present time was to go too far. Nevertheless, research should continue, both on the vaccine and on its application, taking due account of the capacity of different countries to use that particular kind of vaccine. The initial objective should be to protect man, with other developments to follow.

Dr SUDSUKH said that high priority should be attached to the problem of rabies, in the prevention of which primary health care was a key factor. He welcomed the Expert Committee's recommendation that cultures of animal cell vaccine should replace the human diploid cell vaccine, which was very expensive. Some further information on how far that recommendation had actually been implemented would be appreciated.

Dr MOLTO commended the Expert Committee on its report. With respect to vaccine costs, one practical problem facing developing countries was how to cope with the sudden sharp price increases practised by some laboratories. His country, which had made considerable sacrifices in order to channel resources to the control of rabies in animals, especially dogs, and as a result had not had one human case in the previous 10 years, had recently been informed of a very steep rise in the price of the vaccine required for its 1985 programme - the vaccine, moreover, being unobtainable. Fortunately, with the help of PAHO, another supplier had been found, and would be providing the vaccine required at a much lower price. Such difficulties encountered merely in trying to maintain the status quo in a small country without a major rabies problem underlined the extent of the problem in countries attempting to cope not only with rabies in animals but also with human cases of the disease. He appealed to the Director-General to make every effort to persuade countries with the technology for vaccine production to practise reasonable price policies in order to enable a higher level of health to be attained for all the peoples of the world.

Dr KO KO (Regional Director for South-East Asia) drew attention to the considerable efforts that were being made in his Region to develop rabies control from all aspects, including nationwide country programmes, as in Nepal and Sri Lanka, and the production of cell line vaccines using new methodologies, as was being carried out as a regional project based in India. As had already been mentioned, considerable coordinated efforts had been made by the South-East Asia regional collaboration group, which had already participated in its training programme. The progress achieved so far had been made possible by the technical guidance and financial support received. However, those two components alone would not suffice when programmes were to be implemented or extended at national level. Dealing with the relevant zoonotic problems would be a long-term process and - in addition to technical advice and financial support - when it came to the transfer of technology, real and sincere international collaboration, based on goodwill, was essential if the programmes were to be implemented successfully as planned.

Dr BÖGEL (Chief, Veterinary Public Health) said that work on the control of rabies was one of the most gratifying and satisfying tasks in veterinary public health in WHO. It was a field in which there had been a long tradition of intersectoral and international cooperation, primary health care and community participation. Many successes had been achieved but there were also a number of problems.

He proposed to group his replies to the many questions that had been posed under three headings: national programme development, international services (including technology transfer), and research.

With regard to national programme development, the significance of rabies control for primary health care and the contribution of primary health care, especially community participation, to rabies control was apparent to all. The suggestions the Board had made on the subject were very pertinent. WHO was making and would continue to make special efforts to mobilize resources in the various sectors concerned since there was still a great deal to be done not only in the developing world but also in the developed countries. Attention would be specially directed to investigation of the epidemiology and ecology of rabies in urban and rural areas and in wildlife.

National programme development was at present generated almost solely by the countries themselves. International action in the field, however, in addition to the AGFUND/Rädda Barnen project involving three countries that had already been mentioned, included an agreement reached at a meeting organized by PAHO by all Ministers of Agriculture of the Americas to tackle the problem of rabies, particularly in urban areas, in order to bring the disease under control by 1990. Similar positive action had occurred in the South-East Asia Region, where UNDP would be supporting the development of national plans and management procedures in six countries and would also help to finance the pilot projects or initial phases of such programmes.

Most countries, it was true, were short of vaccine. In many countries, the shortage of human rabies vaccine, especially in outlying areas, was a cause of greater concern than the shortage of animal vaccine.

With regard to international services, an essential component of WHO's international efforts in the field of rabies control was to create foci of coordination in the developing countries. Such foci of coordination for East Africa, West Africa and South-East Asia were under discussion. They already existed in the Mediterranean countries and the Americas but would need to be extended to a number of countries in North Africa and in the Arab world. A great deal remained to be done, but it was hoped that in two years' time a successful outcome could be reported.

Vaccine testing remained one of the greatest problems in rabies because many countries continued to use, import or apply vaccines without proper testing. Vaccine standards had largely been established but still required improvement as regards some live virus vaccines developed for testing in wildlife.

The transfer of technology for vaccine production was a subject which WHO had been actively promoting, and he could provide detailed information on the question. Two consultations held recently at WHO headquarters had discussed the matter. WHO was making special efforts to seek resources for technology transfer for vaccine production, for determination of the criteria for such transfer and for the provision of services for it. The Rockefeller Foundation had indicated its willingness to provide support for such action.

Many very pertinent and useful suggestions on the subject of research had been made by Board members. The Board should note that oral vaccines had so far only been employed in experimental trials and that no country had yet used them as a licensed vaccine applicable under routine conditions. However, the programme in operation in Switzerland was considered to have freed two-thirds of the country from the disease. In addition, large field research projects were under way or planned in two other countries in Europe. However, the most important problem as far as WHO was concerned was the control of rabies in the dog population in the developing countries. It was gratifying to report that a vaccine strain had been developed by a WHO collaborating centre for application in developing countries. Field trials had yet to be carried out, but positive results had been achieved in the laboratory. The vaccine and the bait that had been developed for it were expected to be suitable for use in areas where dogs could not be reached easily with other vaccines as, for example, in South-East Asia, in temples, market-places, roadside food places and similar areas.

WHO was running a special research programme on the use of monoclonal antibodies in diagnosis, vaccine development and epidemiological research. Initial results had been very encouraging and it was expected to be completed in May 1985. The results of those studies and the establishment of a panel of antisera should permit the use of monoclonal antibody in the areas mentioned by Board members, namely differentiation of vaccine and field virus strains, and characterization of individual strains occurring in various animal species.

Research on interferon, i.e., a combination of interferon with vaccine was still in progress. There was a very active group working on the subject at the Centers for Disease Control in Atlanta. It was hoped that clinical trials would soon be initiated.

Ecological studies were being pursued with vigour since there was little knowledge of the ecology of dog populations in contrast to the large amount of data on fox populations in Europe. Dogs were in close contact with human beings in the developing world and it was urged that no national programme on canine rabies control should be started without investigation of canine ecology in the country concerned.

The quality and effectiveness of human vaccine was still a major concern. Studies, including the vero cell substrate project mentioned by the Regional Director for South-East Asia, were being energetically pursued in various countries with the aim of producing the low-cost safe vaccines required by the developing world. Sad to say, the world at present was divided into those who could afford safe, potent vaccines and those (80% of all those receiving vaccine) who could not.

Vaccine costs remained an acute problem. Plans were afoot to establish, outside WHO, a world fund for rabies control. The Sovereign Military Order of Malta was reported to be particularly involved in the project and further news of it was expected shortly. The cost of human treatment was such that it was felt that countries should first of all try to eliminate rabies, at least on a local basis, from the natural reservoir where there was only one host, namely the dog, and the disease could be eliminated easily with the means already available. That could be shown to be far less costly than continuing expanding human postexposure treatment but the veterinary services in many countries were not yet in a position to deal effectively with the problem. In fact, in most developing countries rabies could only be brought under control by means of collaboration between the public health and the veterinary services since the manpower of one service on its own would be insufficient to cope with the task.

While he regretted the impossibility of replying individually to Board members, he wished to thank them for the very great interest they had shown in the subject and for their favourable comments on the report of the Expert Committee on Rabies. The Committee's report had been achieved through the collaboration of 80 scientists throughout the world. A number of the proposals before the expert Committee had been sent out beforehand to governments in all parts of the world for their opinions. Hence nearly all governments had been involved in the preparatory work for the Expert Committee. In addition, about ten preparatory consultations had been held, the costs of which had been borne by governments and collaborating institutions and had therefore not been a charge on the WHO regular budget. That was clear evidence of the goodwill and interest of the countries and of the impact of the Organization's functions in the field. He wished to express his thanks to all governments and people throughout the world who had helped in the preparation of the Expert Committee's report.

Dr ASSAAD (Director, Division of Communicable Diseases) said that the most appropriate way of celebrating the 100th anniversary of the development of rabies vaccine by Pasteur would be to remove as far as possible the differences between the haves and the have nots. Among the efforts to bridge the gap were those to develop a much cheaper and more effective vaccine than that available at present. A large consultation on the subject had been held in October 1984 followed by a meeting of a group of experts in December to advise the Organization on the best means for the transfer of such technology. Both the consultation and the group had stated their conviction that in the developing world capabilities existed, not necessarily in all countries but, individually in large countries and on a regional or subregional basis for others, for the production of an effective low-cost vaccine by means of tissue culture. The group of experts took the view that vero cell substrate would at present be the most appropriate technology and that canine rabies vaccine should be produced first and human vaccine later. The group also called on WHO to convene a group of experts to discuss the problems related to the use of a continuous cell line in human vaccine. As had been mentioned, the Rockefeller Foundation had offered its support to the programme and it would in fact be acting in many respects on behalf of WHO in getting in touch with countries and deciding on the best line of action. It was expected that the group's report would be available before the end of the month.

Education and training of nurse teachers and managers with special regard to primary health care (WHO Technical Report Series, No. 708)

Dr HAPSARA said the Expert Committee report was most timely and agreed with the recommendations made. However, the problem still remained of implementing those recommendations and some thought should be given as to how that could be done. Implementation should be based on national policies and the requirements of national research and health manpower development. Ministries of health should play an active and serious part in developing the competences required by the type of personnel concerned. That was considered to be very important in his country, but in fact it was a far from easy task. The type of education under discussion in fact involved changing philosophies and conceptual frameworks. It was a difficult but important programme.

He supported the proposal that research should be undertaken on interprofessional training and team-work and innovative patterns of organization and deployment of manpower.

He had noticed at the beginning of the report that a previous WHO Expert Committee dealing with nursing had met in 1974 and had identified changes required in nursing education. The present report pointed out that, if the findings of the previous Expert Committee had been implemented more widely, nursing personnel could have been in the forefront of the primary health care movement. The report went on to say that circumstances prevailing at the time did not provide the climate required for the ready acceptance of the changes proposed. He would appreciate some amplification of that statement: what were the circumstances and in what way did they prevent the implementation of the recommendations of the 1974 Expert Committee? He was reminded of what the Director-General had said, namely that the findings and recommendations of Expert Committees were either not disseminated widely enough or were not implemented due to lack of awareness.

Dr KHALID BIN SAHAN said that the report was an excellent and useful one and he congratulated the Director-General and the Expert Committee on it.

The report was concerned with the very important issue of nursing education generally, and the reorientation of nurse teachers and managers or leaders specifically. In his country, nurses and nursing auxiliaries constituted about one-third of the trained health personnel. What they did - or what they failed to do - was therefore crucial to the whole objective of health for all. He fully endorsed the recommendations of the Expert Committee, but wanted to emphasize three points.

The first was that of the changing roles of nurses in the health for all strategy, which demanded that they be able to work for and with people away from the familiar ward or hospital situation and among the harsh realities of the community. The job content was then different and in most situations they were expected to be able to work on their own with minimal supervision or only from a distance. Instead of carrying out the instructions of doctors, they would in most cases have to initiate their own actions and make their own decisions. They must therefore be able to do that effectively and with confidence.

The second point was that the nursing leadership must be able to innovate, and must participate in programme planning and evaluation.

Finally, a new working arrangement must necessarily exist if nurses were to play a full and effective role in the health for all strategy. They must be regarded as full members of the health team and not just carry out the instructions of doctors.

He believed that nurses, if properly trained and organized, could perform functions traditionally considered as falling within the sphere of the medical profession only. Not only must nurses be prepared and able to undertake such functions but the medical profession itself, particularly that part of it engaged in primary health care, must be able to reassess its own role and functions in a changing situation.

Professor JAZBI believed that the Expert Committee was to be congratulated on its report, which had appeared at an appropriate time since countries were involved in reorganizing their health services on the basis of the principles of primary health care adopted at the Alma-Ata Conference.

It was true to say that the present teaching of nurses, both at basic and at postgraduate levels, was in many places not community- but rather hospital-oriented. Future strategy, however, demanded that nurses should prepare themselves for the role that they would have to play in providing community health care.

The report described the role that nurses would be playing at the peripheral, as well as at the intermediate and national levels. The assumption that in all countries nurses also worked at the peripheral level might not be true, since, for example, in his country, health technicians were responsible at that level. Where that role could, in fact, be satisfactorily performed by health technicians, their training should accordingly be reviewed and revised, if necessary, on the basis of the present report.

He had been very much disturbed to read in the report that the survey conducted by WHO had revealed that nurses entering post-basic nursing education were not always of an appropriate standard and showed intellectual deficiencies as well as deficiencies in basic nursing training. Consequently, the report had suggested a pre-entrance examination or reorientation pre-entrance course and a revision of the curriculum of basic nursing education and teaching methodology. The report therefore provided guidance to the teaching authorities concerned with nursing education and to governments in the review of selection procedures for admissions to post-basic institutions.

Developing countries suffered from a lack not only of good nurse teachers but of teaching materials. Teachers were not even aware of learning objectives and of new methods evolved in the developed countries for imparting skills. He therefore suggested to the Director-General that WHO should give priority to the training of nurse teachers and to ensuring the availability of teaching and learning materials in countries where teaching institutions existed but lacked the appropriate resources in both men and materials.

Dr TADESSE congratulated the Expert Committee on its splendid work; the report provided a practical and viable strategy.

Since the concept of primary health care had first been discussed, it had become apparent that countries would have to face a number of problems, and health manpower development still remained an obstacle. The task of reorienting existing manpower along the lines recommended in the report might not be easy, but it was essential to persevere. The real issue was how and when such changes could be brought about.

Experience in his country had shown that efforts to increase the efficiency of nurses on a broader basis had been welcomed by all involved, and nursing matrons had influenced physicians in increasing the emphasis on primary health care. There was a need to set priorities in the allocation of financial resources. Furthermore, training should be developed for all levels of health personnel and not solely for nurses.

Dr REGMI commended the Expert Committee on its timely report. Nursing personnel should constitute one of the main pillars of the primary health care movement. They provided the bulk of care in the majority of the developing countries, so that the quality and attitudes of teachers and administrators of nursing personnel were vital. He noted that, when discussing the attitudes and values of nursing personnel on page 34 of its report, the Expert Committee had expressed its concern that the survey of post-basic programmes had revealed that the content of the questionnaire appeared to have been the first information on primary health care received by the respondents, since without full information there could be no real commitment and no stimulus for action. It was thus necessary to be more imaginative in ensuring that the information generated by WHO reached the people concerned.

It was also essential to give very high priority to the recommendation that the reorientation of post-basic programmes for nurse teachers and managers should be undertaken through different means. Indeed, that recommendation was equally applicable to all the information generated by WHO. He strongly supported the holding of "crash courses", and also urged that Member States should play a leading role in ensuring that information was made available in a form and language readily understandable by the people in the various countries.

Mr GRIMSSON also praised the report, which reflected the provisions of operative paragraph 4 of resolution WHA36.11. The report would serve as a most valuable guide to nursing instructors at the different levels.

Dr EL GAMAL considered the report to be invaluable, both from the viewpoint of its high academic level and because of the importance of its subject matter. Nurses played a vital role in treatment and in public health, and the report also stressed the essential nature of their work in the field of primary health care.

The training of nurses should obviously also include that of nurse teachers and managers. The report correctly made general recommendations only, leaving it to individual governments to arrive at specific recommendations in accordance with their varying national conditions. WHO had a most important part to play, and bilateral technical assistance and multilateral cooperation was necessary so as to maximize all existing resources. The preparation of curricula should be encouraged. Indeed, any funds spent on such training constituted a most worthwhile investment for the achievement of WHO's goals. He accordingly gave his full support to the recommendations contained in section 6 of the report.

Dr XU Shouren thought that the proposals contained in what was an excellent report and aimed at developing nursing care within the context of primary health care systems were constructive and of great importance. The views regarding training, utilization and areas of action should improve medical care and stimulate progress towards the goal of health for all.

It was the general practice in countries, including his own, to concentrate training primarily on clinical care, and it was therefore necessary to encourage nurses to concern themselves with primary health care as well. Public health courses should be introduced in nursing schools. Nurses should be taught the principles of primary health care from the outset, and it would be valuable also to introduce refresher courses for the training of experienced nurses. WHO should play a role in providing teaching materials for nurse teachers and managers, and could also help by arranging for the exchange of experience.

Dr QUAMINA expressed her appreciation of the high quality of the report. She pointed out that the sub-region from which she came enjoyed a high standard of nursing education and that for many years exposure to community conditions and to the needs of primary health care had been an essential part of nursing training.

A gap existed in respect of the capacity of nurses to take on the role of nurse managers. She concurred with the view expressed in paragraph 4.2.3 of the report to the effect that further education of nurses in management would be most efficacious if undertaken along with managers of other professions with whom the nurse manager would subsequently work in interprofessional and intersectoral teams. It was most important that the nurse should be taken out of her present isolation and be exposed to other disciplines in the educational setting. She accordingly urged that WHO should insist on management training under those conditions wherever it was providing assistance.

Dr BORGONO emphasized the timeliness of the report, particularly for the developing countries, where the nurse had a vital role to play in primary health care.

The main challenge was that of placing the training of nursing personnel at all levels within the context of health care as part of the strategy for health for all by the year 2000, since that year was not far off. It was also vital for the development of nursing personnel to be coordinated with that of all other types of personnel since some kind of equilibrium was necessary in primary health care teams; that necessarily differed as between various countries, even in the same region. The training of nurse teachers was therefore essential, and many existing teachers were unable to teach the relevant concepts properly, since training meant not just talking but giving a practical example. In addition, schools of nursing were oriented more to patient care than to prevention and to health promotion, which were the foundations of primary health care and the strategy for health for all by the year 2000.

How could the objectives be achieved? It was necessary to change attitudes and values, but that would not be enough without leadership and without the realization that health care delivery was a team activity. Paragraph 5.8 of the report referred to nurses as agents of change, but changes were necessary first of all within the nursing profession itself; that had been achieved in some countries but not in the majority.

Professor ISAKOV said that health manpower training had always been at the centre of WHO's attention. The work of the Expert Committee, with its emphasis on primary health care, therefore deserved high praise.

He agreed that the post-basic training of nurse teachers and managers was currently not fully in line with increasing social and health needs in the majority of countries. He also agreed that optimum use should be made of nurses in strengthening primary health care within the framework of national efforts, since they constituted a vital element in the global strategy. The Committee had correctly raised the question of the need to reorientate the training of nurses and nurse teachers. In the Soviet Union, considerable changes were taking place in the curricula of training programmes for medical personnel with the aim, in particular, of giving greater emphasis to prophylaxis and to the need for annual medical examinations for the entire population.

He hoped that the committee's proposal that the training of intermediate-level personnel and of nurse teachers and managers should be reorientated and would be implemented by Member States.

Dr GARDNER said that the report was a useful tool for furthering nurses' contribution to the attainment of health for all by the year 2000. Its major strength was that the recommendations were based on an assessment of the progress made, the problems encountered and the experience acquired in approaches towards attainment of the goal. It further reinforced previously enunciated concepts and requirements for planning and for the integrated development of health services and health manpower.

The recommendation that nursing education and the training of nurse teachers and managers should be reorientated towards primary health care was being carried out in many medical and health professional schools in order to effect needed changes in health care delivery systems to meet emerging health care requirements. A case in point was the increased emphasis on gerontology and geriatric practice in medical and nursing education to help meet the special needs of the aging and elderly population. The report should help to increase understanding of the complex factors underlying the successful development of primary health care services and the role of nursing administration, clinical practice, education and research in that endeavour.

Dr MOLTO said that he fully agreed with the recommendations made in the report, on which the Expert Committee was to be congratulated. He wished, however, to point out that, despite the special emphasis placed on the training of nurses, the recommendations applied to all health manpower. In many countries, there was a complete lack of contact between teaching institutions and those that consumed health manpower. Constitutionally, in countries, the public health sections of ministries of health played a leading role in that field. Training must be coordinated by teaching institutions and those that consumed health manpower. In many countries the question was not merely one of the quantity of resources available, since in some professions there was a surplus but in others a deficit, but of the quality of those resources. Nurses had adapted well to what was needed but there was a trend to over-specialization and an over-emphasis on clinical activities. He urged all Member States to ensure coordination with the universities so as to ensure that the human resources needed to maintain health services at the appropriate level would be available.

Dr LEE said that the Expert Committee was to be congratulated on an excellent report geared to marshalling administrators and teachers towards health for all through primary health care. He fully agreed with the Committee's emphasis on the need for urgent action to bring about a radical change in the philosophy and conceptual frame of reference of post-basic educational programmes and to identify the competences that nurse teachers and managers needed to develop in post-basic education. It was important to ensure that the directors and administrators of such programmes were informed of what health for all and primary health care were all about. Curriculum reorientation could not take place unless that was done, and since nursing personnel were in the forefront of many health care service delivery systems, Member countries and WHO should make every effort to ensure that the educational programmes were geared to the necessary changes. He strongly endorsed the Committee's recommendations.

Dr REID said that, although he agreed that the report was excellent and supported its recommendations, as in all such matters the crux of the matter was whether individual Member States were implementing the recommendations. He therefore hoped that WHO would not only

respond to the requests of Member States for collaboration in that field, but would also urge governments to ensure that the report was brought vigorously to the attention of the national nurse education and regulatory bodies concerned. Finally, the area was one which offered good scope for a well-devised fellowship scheme.

Dr MAGLACAS (Senior Scientist for Nursing, Division of Health Manpower Development) expressed her appreciation of the interest in the report shown by the Members of the Board, which had greatly exceeded her expectations. She was also gratified by the degree of approval shown for the report and its contents and recommendations, and would try to reply to some of the questions raised.

Dr Hapsara had raised the question of the implementation of the recommendations given in the 1974 Expert Committee's report. It should be borne in mind that that report, entitled "Community health nursing", had represented a radical departure in terms of the challenges it made to widely accepted beliefs and notions about the role and function of nurses and the changes required in nursing education and services to support the new role. It was true that it had not been widely read at the time of its publication, but after the Alma-Ata Declaration, in 1978, it had become a best seller. The reason why it had not been popular originally was perhaps because it had not been adequately disseminated and it had not reached the quarters it should have, i.e., national health authorities, administrators, and decision-makers. Moreover, even the nursing profession itself had not been quite ready to accept the departure from traditional nursing that the Committee so strongly advocated. And, finally, there was clearly not enough dialogue between WHO and nursing leaders, who would have been in a position to motivate and stimulate the changes called for. An important implication of the recommendations was the need to develop leadership in the nursing profession and to encourage nursing leaders to promote the changes needed in the basic and post-basic education of nursing personnel to meet the social and health needs of entire populations. The Executive Board had received a report at its seventy-third session on "Nursing in support of the goal of health for all by the year 2000" which emphasized the need to develop leadership for achieving the goal of health for all. The subject was also referred to in the Director-General's introduction to the proposed programme budget for 1986/87.

Dr Jazbi had drawn attention to a passage in the report mentioning that nurses undertaking post-basic education were deficient in basic training. If that was so, that was a reflection on the teachers of basic education programmes, and the problem was directly related to one of the recommendations which called for a reorientation of post-basic programmes for nurse teachers and managers based on the primary health care approach. Those were the programmes that would prepare teachers for basic nursing education.

Dr Tadesse, while agreeing with the other speakers on the need for change, had asked how such change could be hastened. So far, WHO Expert Committees had produced seven reports on nursing including the present one, and each of them contained a number of recommendations, but what was lacking was the impetus, i.e., political will, to implement those recommendations in schools and institutions, and even in national strategies for the development of nursing personnel; without such will, they would remain as printed words in reports lying on the shelves of libraries, schools, and government offices like the previous ones. Dr Tadesse had further drawn attention to the inadequacy of teaching materials, a criticism that could be applied to all health manpower systems. The Organization was aware of that and priority had been given to the production of health learning materials in WHO's programme of activities for 1986-1987 (See proposed programme budget for the financial period 1986-1987).

Dr Regmi, referring to the section on attitudes and values, had drawn attention to the Committee's concern about the fact that, in most of the 100 schools surveyed, the questionnaire distributed in 1982 had appeared to be the first information on health for all through primary health care received by the respondents. That was yet a further argument in favour of intensifying a dialogue with leaders of the nursing profession, so that they could be kept informed of the trends in nursing and, particularly, the necessary changes that would have to be instigated in educational programmes to ensure the full participation of nurses in primary health care activities.

Dr Borgoño had emphasized the difficulty of bringing about changes, but that applied to all professions, and of course there could be no change at all unless really vigorous measures were taken, and with continuous support; to start to make a change and then to

withdraw support while it was going on would be detrimental. He had asked whether it was really possible to ensure that nursing personnel directly concerned with clinical care and treatment could be diverted towards health promotion and preventive measures. It should be borne in mind, however, that promotion and prevention were connected with clinical treatment in the sense of ensuring that the illness did not recur.

Dr Lee had emphasized the importance of providing crash training programmes. The findings of the survey and the recommendations of the report, as well as many of the statements made during the meeting, showed that such programmes were urgently needed to bring about the required changes in the attitudes of nurse teachers and managers.

While she agreed with Dr Reid that it was up to the Member States to implement the recommendations, WHO response to requests from Member States would be very important. As Dr Reid had pointed out, educational regulatory bodies would have to be involved; the programme budget for 1984-1985 provided for a meeting in November 1985 of a study group on such bodies, to attack the issue of required educational changes in basic and post-basic nursing education.

Finally, as Dr Regmi had said, nursing personnel could make or break a health system in terms of what they did or did not do. Nurses were polyvalent workers who were instrumental in bringing to the people basic and essential health care services in an integrated manner. That meant that all programme activities, i.e., diarrhoea, immunization, etc., were delivered by nurses as integrated primary health care. Accordingly, the sooner they could be reoriented to the concept of primary health care, the sooner they would be able to exercise their potential for maximum contribution to the achievement of health for all.

The DIRECTOR-GENERAL said that, as Director-General, he was prone to pangs of conscience and that in the area at issue he felt considerable guilt. Only the previous week, he had received a letter from a nurse he had worked with in his professional days, saying that he was going to be proud to be the Director-General during whose tenure the nursing profession would be eradicated from WHO. And during the weekend, two reasonable, level-headed WHO Country Representatives he had met had both attacked him concerning the really dramatic decline of interest in promoting good nursing in the Member States of their assignment. There could be no doubt that more must be done in the Organization, particularly since some Members had drawn his attention to relevant resolutions of the World Health Assembly and had asked what had been done to follow them up. Dr Reid had stressed that the crux of the matter lay in the Member States, but charity began at home and the WHO Secretariat obviously could not point a finger at Member States when it was not sufficiently active in that field itself. Where slowness to change was concerned, it was now evident that the nursing profession was infinitely more ready for change than the medical profession. Indeed, there was a great deal of doctor chauvinism in WHO which was making the issue very complicated. He was sure that if representatives of the nursing profession throughout the world could have attended the current meeting, the debate would have been a great moment for them and the response would have given them tremendous courage. He therefore wished to make a concrete proposal that the Board should permit the secretariat to use the tapes of the discussions, without disclosing individual speakers' names, and to compose them into an article which would be published in a suitable WHO publication. That in itself would be a real morale booster to that remarkable group of nurses who had demonstrated that they knew what primary health care was all about and who had so much more emotional energy than the medical profession seemed to be able to mobilize. As a doctor had written to him the other day, to practise primary health care one needed love for one's fellow travellers. He considered that nurses had great potential for that kind of love and that therefore, if WHO was serious about primary health care, it was indeed time that they were brought in much more than hitherto, not for the sake of professional chauvinism as nurses, but fairly and squarely as leaders and managers of the primary health care/health for all team, together with others. Personally, he was prepared for the change and the secretariat would try to make sure that things began to happen in that direction in the next year or two.

Dr GARCIA BATES said that, as a woman and a former nurse, she felt that it was important for her to make a few remarks on what was something of a historic occasion as far as the role to be played by nurses was concerned. It was important to think of the cause and effect situation of nursing and health care, particularly in the countries with which she was most familiar, where nursing was following the general trend of health care and appeared to reflect what was happening in terms of the organization of the services. A perusal of the budgets of the countries concerned showed that priority was given to clinical rather than

preventive care; funds were allocated primarily to curative care, while those for prevention covered only such essentials as the purchase of vaccines and the like. The same applied to primary health care and, in spite of repeated statements by Member States as to their intention to give priority to such care, it was clear that priority was given to tertiary care, not only in practice, but also in all professional curricula. The major part of medical training in the mainly Latin American countries that she knew personally was also devoted to curative medicine and tertiary care. That was important because nursing had been for a long time a kind of spearhead in effecting fundamental changes, whereas in fact it was not and no one profession could bring about the necessary change: what was needed was an integrated multidisciplinary approach in which all learned to work together.

Professor LAFONTAINE said that a concerted effort should indeed be made to achieve the goal of primary health care. As Dr Garcia Bates had pointed out, doctors needed to be trained to that end. At the present time, they were being trained as technologists and "carers for the sick", but the other aspects of medicine were neglected and the struggle should be continued to enable doctors also to make their contribution. Another profession which was too often neglected and which WHO should perhaps mobilize to better effect was that of pharmacists, who should not only be vendors of medicaments, but could provide valuable assistance through their contacts with the public.

Dr MAKUTO endorsed the comments made by Board members and supported the Director-General's proposal to publish an account of the Board's discussions.

The CHAIRMAN observed that there were no objections to that excellent proposal.

The Director-General's proposal was approved.

The meeting rose at 5h40.

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