XXV MEETING OF THE ADVISORY COMMITTEE
ON HEALTH RESEARCH

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PRIMARY HEALTH CARE RESEARCH IN CANADA

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PRIMARY HEALTH CARE RESEARCH IN CANADA*

Although research in Primary Health Care is not specifically mentioned in the Declaration of Alma Ata, the need for health services research is stressed in the recommendations of the Alma Ata conference. Also, the joint report on Primary Health Care by the Director General of the World Health Organization and the Executive Director of the United Nations Children’s Fund, presented at the conference, specifically notes that much needs to be learned about the application of Primary Health Care under local conditions. This includes the organization of Primary Health Care and of supporting services within communities, and the mobilisation of community support and participation. It also includes the best way of applying available technology or the development of new technologies as required, and the planning for and training of community health workers. The Declaration of Alma Ata defines four levels of intervention; the family, the community, the first-level health institution and the referral level, and notes eight essential elements of Primary Health Care, namely: education, nutrition, safe water and basic sanitation, maternal and child health, immunization, control of endemic diseases, treatment of common diseases and

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INJURIES, AND PROVISION OF ESSENTIAL DRUGS. ANY DISCUSSION OF RESEARCH IN PRIMARY HEALTH CARE MUST RELATE TO THESE AREAS AND I WILL RETURN TO A NUMBER OF THEM A LITTLE LATER.

BEFORE DISCUSSING THE DETAILS OF PRIMARY HEALTH CARE RESEARCH IN CANADA, IT IS PERHAPS NECESSARY TO SAY A FEW WORDS ABOUT CANADA AND THE CANADIAN HEALTH SYSTEM AS A WHOLE. CANADA IS REGARDED AS BEING A DEVELOPED COUNTRY. HOWEVER, IT IS OFTEN COMMENTED THAT CANADA'S NORTH HAS MANY SIMILARITIES TO THE DEVELOPING WORLD. THIS IS CERTAINLY TRUE IN TERMS OF REMOTENESS AND ISOLATION OF SMALL COMMUNITIES, LANGUAGE AND CULTURAL DIFFERENCES AND COMMUNICATION AND TRAVEL DIFFICULTIES, FREQUENTLY INTENSIFIED BY ADVERSE WEATHER CONDITIONS. AS A RESULT, THE PROBLEMS OF DELIVERY OF PRIMARY HEALTH CARE IN NORTHERN CANADA SHARE MANY CHARACTERISTICS WITH THOSE ENCOUNTERED IN DEVELOPING COUNTRIES. THE MAIN DIFFERENCE BETWEEN NORTHERN CANADA AND THE DEVELOPING WORLD IS THAT CANADA DOES HAVE MUCH BETTER FINANCIAL RESOURCES TO TACKLE THE PROBLEMS. IT DOES NOT HOWEVER MEAN THAT WE HAVE ALL THE SOLUTIONS AND RESEARCH IN A NUMBER OF AREAS IS ESSENTIAL.

CANADA IS A FEDERAL STATE MADE UP OF A CENTRAL FEDERAL GOVERNMENT, TEN PROVINCIAL AND TWO TERRITORIAL GOVERNMENTS. THERE ARE ALSO A NUMBER OF NON-GOVERNMENT ORGANIZATIONS WITH IMPORTANT INTERESTS AND INVOLVEMENT IN DELIVERY OF HEALTH CARE. RESPONSIBILITY FOR HEALTH CARE IS SHARED AMONG
THE DIFFERENT LEVELS OF GOVERNMENT. However, the responsibility for health care delivery rests mainly with the provincial governments. The exception is health care delivery to Indian people, especially in the northern parts of the provinces and to Inuit and other residents of the Yukon and Northwest Territories. At the present time the health of these people remains the responsibility of the federal government. They total some 350,000 out of a national population of 25 million. Through the medicare system, treatment services are available to the vast majority of Canadians. However if one takes the broad definition of Primary Health Care to include not only first-level treatment, but also health promotion, prevention of illness and the other components of Primary Health Care mentioned earlier, then the level and form of delivery is more variable between provinces and between different regions of the country. Because of this mosaic, it is impossible to cover all aspects of Primary Health Care at all levels in a short presentation. I will therefore ask your indulgence to concentrate on one major aspect, that is, the provision, by the Federal government, of Primary Health Care services in remote areas of northern Canada, the problems which are encountered, and the lines of research which are being developed. Dr. Laidlaw has already talked to you about research at the medical school and university level across the country.
Therefore I will only note that, in most areas of the North, we have developed agreements with the major medical schools of the country for the provision of medical support to Primary Health Care services in isolated areas. Obviously this in itself contributes to the research efforts being made.

The federal government, through its Indian and Inuit Health Services program, operates eight (8) hospitals, six (6) cottage hospitals, ninety six (96) nursing stations, one hundred and twenty seven (127) health centres, one hundred and ninety seven (197) health stations and twelve (12) clinics. The health service providers include eight hundred and sixty (860) nurses, many of whom are Primary Health Care nurse practitioners, twenty-eight (28) physicians, most of whom are in administrative roles, eighteen (18) dentists, fifty-nine (59) dental therapists and sixty (60) environmental health officers. There are also five hundred and forty (540) community health representatives, all of whom are Indian or Inuit, usually from the community in which they are working and six hundred and fifty (650) alcohol and drug abuse workers. Again, the majority of these are Indian or Inuit people and they are working at the community level. The Indian and Inuit Health Policy under which the program operates has as its goal "to achieve an increasing level of health in Indian and Inuit communities, generated and maintained by the communities themselves".
The pillars of the policy are community development, participation by Indian and Inuit people in provision of health services and the Canadian health system which I described earlier. Program components include treatment, dental and community health services, environmental health surveillance, the Alcohol and Drug Abuse Program and hospital services. The system is reasonably integrated, with the hospitals acting as bases for a Primary Health Care outreach program to remote communities. In a typical remote community, a range of Primary Health Care services will be delivered by nurse practitioners working in a nursing station. They provide treatment and preventative health care, assisted by a community health representative from the community and supported by regular visits by a doctor from the base hospital or related medical school. There are also occasional visits by senior nursing staff, environmental health officers and administrative staff. In some communities there will also be a resident dental therapist carrying out a comprehensive dental program. Ideally, there is also a community health committee which links the community, including its leadership with the staff at the nursing station. This is the ideal situation; we do not always succeed in achieving it.

There is a strong movement by Indian and Inuit people towards community control of local resources including those relating
TO HEALTH CARE DELIVERY. THIS IS NOW BEING ADDRESSED BY THE FEDERAL GOVERNMENT. FOR INSTANCE, TWO YEARS AGO WE TRANSFERRED THE HOSPITAL AT FROBISHER BAY TO LOCAL CONTROL AND IN SEPTEMBER OF THIS YEAR, CONTROL OF THE NURSING STATIONS IN THE BAFFIN ISLAND COMMUNITIES WILL ALSO BE TRANSFERRED. A NEW HEADQUARTERS DIRECTORATE HAS BEEN DEVELOPED TO ADDRESS THE TRANSFER ISSUE.

IT WAS WITHIN THIS CONTEXT, A LITTLE OVER A YEAR AGO, THAT I WAS ASKED TO SET UP A RESEARCH AND DEVELOPMENT PROGRAM. MY FIRST STEPS WERE TO CONSULT WITH STAFF IN OUR REGIONS ACROSS THE COUNTRY, THE STAFF OF THE MEDICAL SCHOOLS PROVIDING SERVICES TO THE NORTH AND, OF COURSE, WITH REPRESENTATIVES OF THE INDIAN AND INUIT PEOPLE. AS A RESULT OF THESE DISCUSSIONS, I DEVELOPED A SERIES OF RESEARCH PRIORITIES WHICH I HAVE DIVIDED INTO FOUR GROUPS. THE FIRST OF THESE GROUPS IS SPECIFIC MEDICAL OR HEALTH ISSUES; SECONDLY, COMMUNITY BASED RESEARCH PROJECTS; THIRDLY, SELF-DETERMINATION AND TRANSFER ISSUES AND FOURTHLY HEALTH OPERATIONS AND HEALTH SERVICES DELIVERY RESEARCH.

THE FIRST GROUP, SPECIFIC MEDICAL AND HEALTH ISSUES, IS IN MANY WAYS, THE EASIEST TO IDENTIFY. FOR EXAMPLE, IN THE NORTHWEST TERRITORIES, THERE IS A HIGH INCIDENCE OF MENINGITIS DUE TO HAEMOPHILUS INFLUENZAE. A NEW POLYSACCHARIDE VACCINE AGAINST HAEMOPHILUS INFLUENZAE HAS JUST BEEN LICENCED, BUT UNFORTUNATELY, IT IS ONLY EFFECTIVE IN CHILDREN OLDER THAN TWO YEARS OF AGE. THE MAJORITY OF CASES
OF H1 Meningitis in the North occur at under two years of age. Two new conjugate vaccines are being developed which should be effective at this age, but they are still at the trial stage. Through discussion with the parties involved and by arranging a workshop, I was able to facilitate a joint proposal by four universities for a trial in the North of one of the new conjugate vaccines. Hopefully the trial may be funded by the Medical Research Council. There are currently a few design problems with the study but these will, I hope, be ironed out soon. I am using it here as an example of the type of joint research project involving input by government, universities, communities, clientele and research institutions, with application at the community level, which is I believe essential for many types of research in Primary Health Care. Another example is, in fact, a reverse transfer of technology. Although Oral Rehydration Therapy has been developed by WHO and UNICEF and has been used in developing countries for many years, it has not been used, for a variety of reasons, in northern Canada. Again, after discussion with members of the Canadian Paediatric Society and representatives of three Medical Schools, a project is being put together and there will hopefully be a program developed this summer in northern Canada. This project is not to find out whether Oral Rehydration Therapy works - its efficacy is recognized - but rather to assess the best method for its utilization in the northern Canadian context at the Community and Family level.
Another specific research issue is diabetes, the prevalence of which, in some Native communities, is now higher than in the non-Native population. This seems to be linked to acculturation but we would like to know why, so as to better design our Program. A review of the use of B.C.G. in the tuberculosis program is also proposed. Although the prevalence of tuberculosis has fallen rapidly in the Native population in the last 20 years, it is still considerably higher than in the general Canadian population. A re-assessment of the use of B.C.G., in the light of recent studies in Canada and other countries, is needed. Research work is also underway on the prevalence of Hepatitis B and the use of Hepatitis B vaccine in a number of northern communities. These are but a few examples of specific medical research projects currently in hand.

Another area of concern in this group of specific issues is environmental health. This includes the usual problems of safe water supply and sanitation, but additionally, a very specific concern for research into the effects of environmental contaminants. Although it used to be thought that one advantage of living in an isolated area was that the area would be free of contamination, this has proven not to be the case. A few years ago, a major problem due to methylmercury in the environment was identified in certain locations in northern Canada. The mercury was entering
THE WATER SYSTEMS AND THEN BEING BIO-ACCUMULATED INTO FISH AND SEA MAMMALS USED AS FOOD SOURCES BY THE INDIAN AND INUIT PEOPLE. BECAUSE THE NATIVE PEOPLE WERE LIVING IN ISOLATED AREAS, AND NOT EATING COMMERCIAL PRODUCTS, THE PROTECTIVE SCREEN OF TESTING OF COMMERCIAL FOOD SOURCES WAS NOT IN PLACE AND THEREFORE THE NATIVE PEOPLE IN THE CONTAMINATED LOCATIONS WERE MORE EXPOSED TO THE ENVIRONMENTAL HAZARD THAN THE GENERAL POPULATION. THIS PROBLEM WAS COMPOUNDED BY THE LARGE QUANTITY OF FISH EATEN BY MANY INDIAN PEOPLE. THE PROBLEM NECESSITATED A MAJOR RESEARCH PROGRAM TO FIND OUT THE FACTS AND TO PROVIDE SUITABLE ADVICE AND ASSISTANCE TO THE PEOPLE AFFECTED. A SIMILAR PROBLEM IS NOW COMING TO LIGHT IN TERMS OF POLYCHLORINATED BIPHENYLS (PCBs) WHICH ARE APPEARING IN SIGNIFICANT LEVELS IN INDIAN AND INUIT PEOPLE LIVING IN VERY REMOTE AREAS IN NORTHERN CANADA.

APPLIED, RATHER THAN ESOTERIC, SO THAT THE COMMUNITY CAN BE AWARE OF THE POTENTIAL BENEFITS. THIS TYPE OF PROGRAM NEEDS PLANNING, NURTURING AND PATIENCE TO SEE IT THROUGH. THERE NEEDS TO BE A SENSE OF OWNERSHIP, BY THE COMMUNITY, OF THE WORK TO BE DONE, WITH INPUT FROM THE LOCAL HEALTH BOARD AND COMMUNITY LEADERS. THERE MUST BE AN ONGOING DIALOGUE BETWEEN THE COMMUNITY MEMBERS AND THE RESEARCHERS. IN MANY REMOTE COMMUNITIES, PRIMARY EXPECTATIONS RELATE TO TREATMENT SERVICES AND UNLESS THESE EXPECTATIONS ARE MET, THE CHANCES OF BEING ABLE TO CARRY OUT SUCCESSFUL RESEARCH PROGRAMS ARE LIMITED.

RESEARCH IN COMMUNITY PARTICIPATION IN HEALTH SERVICES DELIVERY HAS BEEN LIMITED. HOWEVER, IN CANADA, OVER THE LAST FEW YEARS, A SERIES OF DEMONSTRATION PROJECTS HAVE BEEN UNDERTAKEN AT THE COMMUNITY LEVEL. MANY OF THESE PROJECTS INCLUDED ASSESSMENTS OF COMMUNITY HEALTH NEEDS AND COMMUNITY PARTICIPATION IN HEALTH CARE INFRASTRUCTURE DEVELOPMENT. THESE PROJECTS ARE JUST COMING TO A CLOSE AND AN EVALUATION HAS BEEN UNDERTAKEN. MOST WERE RECEIVED VERY POSITIVELY AT THE COMMUNITY LEVEL, BUT THE MAJOR PROBLEM WITH DEMONSTRATION PROJECTS WAS NOTED - THERE IS A FIXED TIME FRAME. ON REACHING THE END OF THIS TIME FRAME, THERE IS PRESSURE FROM THE COMMUNITY TO CONTINUE THE PROJECT. CARE HAS TO BE TAKEN, THEREFORE, IN THESE TYPES OF PROJECTS NOT TO OVER-RAISE LOCAL EXPECTATIONS UNLESS THERE IS A STRONG PROBABILITY OF CONTINUATION OF THE PROJECT.
WITH SMALL, ISOLATED POPULATIONS, TWO OTHER PROBLEMS FREQUENTLY occur. Firstly, because of the relatively small numbers, there is a practical problem with statistics and statistical trends. One or two additional cases in a community may appear to modify a trend, if the findings are not properly interpreted. Secondly, because of the small numbers, it is very easy for a community to develop research fatigue if it is repeatedly subjected to research activities. There is no easy answer to this problem, except the point made earlier, that there must be involvement of the community in any projects which are undertaken.

My third research category I have called "self-determination and transfer issues". This is a very significant area in Canada at the present time. In many ways it is an extension of the previous research grouping. The ultimate participation of a community in research into its health care is the acceptance of control of, and responsibility for, its own health care. I mentioned previously the transfer in Baffin Island. Another example is the transfer of control of services in northern Quebec to Indian and Inuit Health Boards. These transfers were part of a major agreement between Federal and Provincial governments and the native communities. There were a number of difficulties during the transfer period due to varying interpretations of the agreement. However, both Indian and Inuit systems are now in place. The Health Boards work in liaison with the Quebec Provincial Government.
AND CONTROL AND ADMINISTER HEALTH CARE SERVICES IN THEIR OWN AREAS. APART FROM ONE OR TWO OTHER SPECIFIC SITUATIONS ELSEWHERE IN CANADA, THE TRANSFER PROCESS IS STILL IN THE DEVELOPMENTAL PHASE. THE INTENT IS, IN CLOSE CONSULTATION WITH THE NATIVE PEOPLE, TO DECENTRALIZE DECISION MAKING, PRIORITY SETTING AND CONTROL OF HEALTH SERVICES TO LOCAL CONTROL. THIS LOCAL CONTROL MAY BE AT THE LEVEL OF A COMMUNITY, A GROUP OF COMMUNITIES, AS IN THE QUEBEC SITUATION, OR A GEOGRAPHIC REGION, AS HAS OCCURRED IN BAFFIN ISLAND. A GREAT DEAL OF WORK STILL REMAINS TO BE DONE IN THIS AREA, RANGING FROM NEEDS ASSESSMENTS AT COMMUNITY LEVEL TO RESEARCH INTO POST-TRANSFER SUPPORT OF HEALTH CARE SYSTEMS.

MY FOURTH GROUP IS HEALTH OPERATIONS AND HEALTH SERVICES DELIVERY RESEARCH. THIS IS, OF COURSE, A VERY WIDE CATCH-ALL TYPE OF GROUPING. IT INCLUDES HEALTH SITUATION ANALYSIS, TECHNOLOGICAL DEVELOPMENT, ACCESSIBILITY OF HEALTH SERVICES, LIFESTYLE MODIFICATION, TRAINING OF PARAMEDICAL AND OTHER HEALTH WORKERS AND DEVELOPMENT OF HEALTH COMMUNICATION SYSTEMS.

I WILL MENTION A FEW SPECIFIC EXAMPLES. WITHIN THE HEALTH SITUATION ANALYSIS GROUP, WE HAVE IN MANY AREAS ENCOURAGED COMMUNITIES TO CARRY OUT A LOCAL HEALTH NEEDS ANALYSIS. A NUMBER OF SUCH ANALYSES HAVE BEEN DONE UNDER THE NATIONAL NATIVE ALCOHOL AND DRUG ABUSE PROGRAM TO ASSESS PROBLEMS AT THE COMMUNITY LEVEL AND TRY TO PROVIDE LOCAL ANSWERS.
Another facet of health service delivery research is the area of development of training programs for paramedical and other health workers. We have had considerable experience over the years in training primary health care nurse practitioners. These are qualified nurses to whom we give additional training and who then operate, essentially as general practitioners, in the more remote communities. We have also trained community health representatives, usually women, who are from, and chosen by the local community. Thirdly, we have dental therapists. Some years ago, we developed a dental therapy training school in the Northwest Territories. This provides a two-year curriculum which trains the individual to carry out routine dental treatment, preventative work and dental health promotion. A dental program is set up for each individual patient, under the supervision of a professional dentist. However, that program is then carried out over a period of time by the dental therapist. The professional dentist may, by then, be many hundreds of miles away. Normally, the dental therapist will stay in a community until that community has reached a reasonable level of dental health. This program has been very successful. In fact, it was so successful that the school has had to be moved from the Northwest Territories to the south because it had run out of patients in the nearby communities.

Overall, these training programs have been reasonably successful, but problems have arisen in the training of nurse
PRACTITIONERS AND IN THE TRAINING OF COMMUNITY HEALTH REPRESENTATIVES. WITH THE FORMER GROUP, WHAT STARTED AS A PRACTICAL TRAINING COURSE AT A UNIVERSITY IN CANADA, WAS GRADUALLY MODIFIED BY THE UNIVERSITY TOWARDS AN ACADEMIC COURSE WHICH, ALTHOUGH OF INTEREST, WAS NOT THE TYPE OF PRACTICAL, APPLIED COURSE WHICH WAS REQUIRED. WE ARE THEREFORE CURRENTLY IN THE PROCESS OF REVIEWING AND RE-DESIGNING OUR APPROACH TO TRAINING NURSE PRACTITIONERS. IN THE CASE OF COMMUNITY HEALTH REPRESENTATIVES, THE PROBLEM HAS BEEN THAT SINCE THE MAJORITY OF TRAINEES ARE WOMEN WHO OFTEN HAVE FAMILY RESPONSIBILITIES, THERE HAS BEEN RESISTANCE TO LEAVING THE COMMUNITY FOR PERIODS OF UP TO SIX WEEKS AT A TIME TO GO TO CENTRAL COMMUNITY COLLEGES FOR TRAINING. AS A CONSEQUENCE, THERE IS CURRENTLY PRESSURE FOR THE COURSES TO BE DELIVERED AT THE COMMUNITY LEVEL. AGAIN, A REVIEW IS BEING UNDERTAKEN TO TRY TO RESOLVE THESE DIFFICULTIES. IN BOTH CASES, THE PRIMARY NEED IS TO MAKE THE COURSE RELEVANT TO THOSE WHO ARE TAKING IT AND RELEVANT TO THE WORK TO BE CARRIED OUT AT THE COMMUNITY LEVEL.

OF NECESSITY, THIS HAS BEEN A RATHER RAPID OVERVIEW OF THE FEDERAL GOVERNMENT COMPONENT OF THE CANADIAN PRIMARY HEALTH CARE DELIVERY SYSTEM AND OF THE RESEARCH PROGRAM BEING DEVELOPED WITHIN THAT SYSTEM. I HAVE NOT SPENT TIME ON THE SPECIALISED WORK WHICH HAS BEEN DONE ON COLD PHYSIOLOGY AND RESPIRATORY DAMAGE IN INUIT NOR ON OTHER ISSUES SUCH AS THE LINKS BETWEEN BOTTLE FEEDING AND OTITIS MEDIA, WHICH IS COMMON
IN NORTHERN CANADA AND IN MANY OTHER TRANSITIONAL SOCIETIES. SUFFICE TO SAY THAT CHANGES IN EXPOSURE TO INFECTION, NUTRITIONAL PATTERNS, LIFESTYLES, AND SOCIO-CULTURAL UPHEAVAL IN MANY DEVELOPING GROUPS INCREASE THE NEED FOR RESEARCH TO ESTABLISH VALID EPIDEMIOLOGICAL BASELINES TO ENABLE US TO MONITOR FUTURE CHANGES IN THE HEALTH PICTURE AND BE PREPARED TO TAKE APPROPRIATE ACTION.

I WILL RETURN, BRIEFLY, TO MY OPENING STATEMENT IN WHICH I NOTED THE EIGHT ESSENTIAL ELEMENTS OF PRIMARY HEALTH CARE. I HAVE DESCRIBED SPECIFIC PRIMARY HEALTH CARE RESEARCH PROJECTS IN CANADA IN SIX OF THESE ESSENTIAL ELEMENTS. OF THE REMAINING TWO, ESSENTIAL DRUGS, IS NOT A SPECIFIC RESEARCH PROBLEM FOR US. APPROPRIATE LISTS OF DRUGS HAVE BEEN WORKED OUT FOR OUR TREATMENT CENTRES AND NURSING STATIONS AND A DISTRIBUTION NETWORK IS ALREADY IN PLACE. THE FINAL ESSENTIAL ELEMENT, WATER SUPPLY AND SANITATION AGAIN IS NOT PRIMARILY A RESEARCH PROBLEM. IT IS A PRACTICAL PROBLEM OF RESOURCES AND TECHNOLOGY WHICH IS SLOWLY BEING RESOLVED.

THE PRIMARY HEALTH CARE RESEARCH PROGRAM IS STILL BEING DEVELOPED AND WILL, I BELIEVE, BEGIN TO SHOW RESULTS OVER THE NEXT TWO OR THREE YEARS. I HOPE THAT IT WILL BE POSSIBLE TO EXCHANGE OUR FINDINGS WITH THOSE FROM RESEARCH BEING CARRIED OUT BY OTHER MEMBER COUNTRIES OF P.A.H.O., TO OUR MUTUAL BENEFIT. I LOOK FORWARD VERY MUCH TO LISTENING TO THE DISCUSSIONS THIS WEEK. I WOULD BE HAPPY TO ANSWER ANY QUESTIONS WHICH YOU MAY WISH TO ASK.
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SUMMARY OF THE DOCUMENT:
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Although Canada is regarded as being a developed country, the northern part of the country shares many of the characteristics of the developing world and therefore also shares many of the problems of delivery of Primary Health Care services to isolated and remote communities.

Canada is a federal state made up of a central federal government, ten provincial and two territorial governments. The responsibility for health care is shared among the different levels of government. However, the responsibility for health care delivery rests mainly with the provincial governments. The exception is health care delivery to Indian people, especially in the northern parts of the provinces and to Inuit and other residents of the Yukon and Northwest Territories. At the present time, the health of these people, a total of 350 thousand out of a population of 25 million, remains the responsibility of the federal government. Through the universal Medicare System, treatment services are available to the vast majority of Canadians. Delivery of Primary Health Care programs is more variable between the different provinces and regions of the country.
This paper deals with Primary Health Care delivery by the Canadian Federal Government to the northern parts of the country and with the Primary Health Care Research Program which is being developed. The paper reviews the current components of the Federal Primary Health Care Delivery System and the Programs which are being delivered at the community level under the Indian and Inuit Health Policy which has as its goal "to achieve an increasing level of health in Indian and Inuit communities generated and maintained by the communities themselves". The pillars of the Policy include community development and participation by Indian and Inuit people in the provision of health services. In many areas the system is integrated, with hospitals acting as the base for Primary Health Care outreach programs to remote communities. In these communities, services are delivered by nurse practitioners working in nursing stations, assisted by paramedical workers and supported by visits by a doctor from the base hospital or related medical school. There is a strong movement by Indian and Inuit people towards community control of resources including those relating to health care delivery.
Within this context, in early 1985, the author was asked to set up a Research and Development Program. Following consultation with departmental staff, the staff of medical schools providing services in the north and representatives of the Indian and Inuit people across the country, priorities for Primary Health Care research were defined and were then divided into four groups: specific medical or health issues; community-based research projects; self-determination and transfer issues; and, health operations and health services delivery research. Examples are given of projects in each of these groups.

The first group, specific medical or health issues, includes research on vaccines against Hemophilus Influenzae Meningitis, the development of an Oral Rehydration Therapy Program, a re-assessment of the use of BCG in the Tuberculosis Program, work on Hepatitis B vaccine and certain environmental issues such as the health effects of methylmercury and PCBs found in fish and sea mammals eaten by people in certain isolated communities. It is emphasized that, in many of these Primary Health Care research projects, there is need for a joint research program involving input by government, universities, communities, clientele and research institutions.
In the second group, community-based research projects, stress is laid on the importance of community participation, input and involvement in projects. The vital importance of feedback from the researchers to the community is also noted. The need for a sense of ownership of the work by the community is emphasised as is the need for an ongoing dialogue between the community members and the researchers. The impact on statistics and statistical trends of the relatively small numbers involved in research in isolated small communities is noted, as is the ease with which a small community may develop research fatigue if repeatedly subjected to research activities.

The third research category, self-determination and transfer of responsibility for health care programs to local control, is a very significant issue in Canada at the present time. Successful transfers in Quebec and the Northwest Territories are mentioned, but it is stressed that elsewhere the transfer process is still in the developmental phase. A great deal of work still remains to be done in this area, ranging from needs assessments at the community level to research into post-transfer support of health care systems.
Under the fourth group, health operations and health services delivery research, are included health situation analysis, development of technology, accessibility of health services, lifestyle modification, training of paramedical and other health workers and development of health communications systems. A few specific examples are noted, including local health needs analyses relating to the National Native Alcohol and Drug Abuse Program, and the training of Primary Health Care Nurse Practitioners and of Community Health Representatives from the local communities. The need for research and development of these programs is mentioned, as is the very successful Dental Therapy School and Program.

It is noted that these research projects address aspects of most of the eight essential elements of Primary Health Care identified in the Declaration of Alma Ata. The need for an ongoing exchange of the information gathered from these research projects and from those projects being carried out in other PAHO countries is stressed.

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