Policy Development *and* Noncommunicable Disease Prevention: *The Road From Kaunas*

WORLD HEALTH ORGANIZATION
EUROPE

Policy Development *and* Implementation Processes *in the* CINDI *and* CARMEN Noncommunicable Disease Intervention Programmes

A Comparative Study

CINDI

CARMEN

Health Canada Santé Canada

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ABSTRACT

The WHO CINDI (Countrywide Integrated Noncommunicable Diseases Intervention) and CARMEN (Conjunto de Acciones para la Reduccion Multifactorial de Enfermedades No Transmisibles) programmes provide member countries with a policy framework and methodology for applying existing knowledge on the integrated approach to the prevention and control of major noncommunicable diseases (NCD). Collectively, they represent a wealth of experience in the application of a wide range of health promotion and disease prevention interventions in countries with different socio-economic conditions, health systems and cultures.

This report presents a synthesis of the results of the second comparative study on policy development and implementation processes in the CINDI and CARMEN programmes: a qualitative analysis of experience gained in translating the theoretical framework of the integrated approach to NCD prevention and control into a community-based action programme. The study reflects national experiences in NCD policy development and implementation in 30 member countries and provides an insight into the strategic issues faced by the CINDI and CARMEN programmes. Since the vast majority of the countries included in the study belong to the CINDI programme, the aggregate results apply mainly to CINDI. However, the lessons learned from the study will be of benefit to both the CINDI and the CARMEN programmes alike. It is the intention to use this report to promote informed discussion and sharing of experience to help track and monitor processes of policy development in this area over time and to increase research in health promotion and disease prevention policy within the CINDI and CARMEN programmes.

Keywords

CHRONIC DISEASE – PREVENTION AND CONTROL
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HEALTH PLAN IMPLEMENTATION
PROGRAM DEVELOPMENT
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COMPARATIVE STUDY
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Executive Summary

The CINDI[1] programme of the World Health Organization (WHO) Regional Office for Europe and the CARMEN[2] programme of the WHO Regional Office for the Americas have a joint aim: the prevention and control of noncommunicable diseases (NCD) and the promotion of health *(1,4,5)*. The WHO Member States participating in these programmes implement, evaluate and develop the integrated approach to the prevention and control of NCD. Intervention measures are aimed at entire populations and high-risk groups. They are implemented at countrywide level and/or in programme demonstration areas according to common protocols and guidelines *(1,2,3,4,5)*. The CINDI and CARMEN programmes constitute unique networks and are repositories of a wealth of experience in the implementation of the integrated approach to NCD prevention and control.

This report presents and discusses the results of the second comparative study of NCD policy development and implementation processes in the CINDI and CARMEN programmes *(6)*.

The overriding objective of the study was to document the experience gained in policy development and programme implementation in the CINDI and CARMEN programmes. It was envisaged that the findings of the study would be used to raise awareness in the participating countries of the importance of strengthening policy development as a key strategy in NCD prevention and control and of charting future programme development.

At the time of the study, the CINDI and CARMEN networks comprised 27 and four countries respectively.[3] All 30 countries participated in the study. Information was collected on origins, organization, resources, partnerships, intervention priority areas, processes of policy development, programme marketing and interaction with other relevant WHO initiatives, programme evaluation, success and sustainability, and programme involvement with the primary health care and public health services. In addition, strategic priorities for the further development of the CINDI and CARMEN programmes were identified.

All countries in the CINDI and CARMEN networks experience a significant burden caused by major NCD. On the other hand, these networks comprise countries with very different political, social and economic trends, as well as different national health and education systems and culture and lifestyle patterns. The results of the study show that, as envisaged, the countries have been using a variety of approaches and methodologies for programme implementation, each depending on the local settings and structures, population health status and priorities, available resources and skills. Considerable programme capacity has been built in the following intervention strategies: monitoring and evaluation, professional education, public education, social marketing. The programmes have enhanced their action in partnership, policy development, dissemination, community involvement and resource mobilization. The participating countries value the benefits they experience as a result of international collaboration and networking. Programme resources are increasing.

[1]Countrywide Integrated Noncommunicable Diseases Intervention.

[2]Conjunto de Acciones para la Reducción Multifactorial de Enfermedades No Transmisibles.

[3]Canada is a member of both CINDI and CARMEN.

Within limits, the study constitutes a "score-card" for the CINDI and CARMEN programmes – an evaluation of implementation – that gives cause for optimism. The key strategic issues addressed by the study relate back to the recommendations of a WHO landmark meeting held in Kaunas, Lithuania, in 1981 *(7)*, which was organized to vigorously pursue the development of integrated approaches to the prevention and control of NCD. At this meeting, the principles of the CINDI programme were laid down. The findings of the study prove that the Kaunas meeting indeed marks the first milestone in "the road from Kaunas". The visionary concept of the integrated approach towards NCD prevention and control proposed in 1981 has been gradually taken up by an increasing number of countries. Since 1983, the CINDI and CARMEN programmes have grown under the leadership of WHO to be a major international collaborative effort for the prevention and control of NCD.

The results of this study, as well as the experiences of programme implementation in a variety of settings in the CINDI and CARMEN networks, showed clearly by giving evidence that: (a) an integrated approach to NCD prevention works; (b) collaboration is possible among countries with different levels of socioeconomic development and varied health systems; and (c) neither single or unified model universally suitable for an integrated NCD prevention and control programme for all countries could be applied nor there is a need for attempting to do so.

The study demonstrates that they CINDI and CARMEN programmes are true observatories for best practices. Their experience in the implementation of an integrated approach to NCD prevention and control can provide useful guidance to their own and other WHO regions on how to harvest knowledge about the opportunities and challenges related to NCD prevention. In the light of these facts, the future of CINDI and CARMEN augurs well.

Preface

The study was carried out to further support WHO and the CINDI and CARMEN participating countries in the development and implementation of policies for the prevention of major NCD through an integrated approach. It was the second comparative study for the majority of CINDI participating countries and a first one for the CARMEN participating countries.

The analysis presented in this report covers a range of topics and processes pertinent to NCD policy development including: documentation of policy context and changes since the first study; resources available, priorities, dissemination capacity and interventions; and the extent and value of international collaboration. When appropriate – and where possible – comparisons have been made between the first and the second studies. The results of these comparisons constitute a cross-sectional assessment of the status of the programmes at two points in time.

The information presented in this report should enable the CINDI and CARMEN Programme Directors to determine the future course of their programmes, and assist WHO in designing global and regional policies for NCD prevention and control.

Professor Dean T. Jamison, working with the World Bank on the World Development Report: Investing in Health *(8)*, has provided evidence that "health policy matters" as a main explanatory variable of why some countries have better health outcomes than others *(9)*. Those responsible for the management of health systems need to ensure that the policy advice they offer is of the highest quality and based on objective information, data and analyses. This is in keeping with the renewed emphasis placed by WHO on evidence-based decision-making.

We hope that the report may assist health policy-makers to appreciate the power of policy development as a strategy towards improving the health of the people in their countries. In this respect, the study may be seen as an attempt to lend objectivity to the definition of best practices for policy development.

On the other hand, this report will be helpful to the process of developing the European strategy for the prevention and congtrol of NCD, especially in combination with the CINDI programme product: "A strategy to prevent chronic disease in Europe: a focus on public health action – the CINDI vision"*(10)*.

Creating health, in the broad sense of the term, is perhaps what Shakespeare was thinking about when he wrote the final words of "Richard III", that the future will: "…enrich the time to come with smooth-faced peace, with smiling plenty and fair prosperous days."

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In Memory of Dr Andres Petrasovits

This report, which presents the results of an extraordinarily interesting and innovative international qualitative analysis in public health research, is dedicated to Dr Andres Petrasovits. He was a master at bridging policy, science and practice. Dr Petrasovits designed the concept of two comparative studies on policy development and implementation processes in the CINDI and CARMEN programmes and contributed substantially to the data collection, the methodology of analysis and the interpretation of the findings of the study, as well as to the preparation of the reports.

Dr Petrasovits was Senior Policy Adviser on Cardiovascular Disease Prevention with Health Canada for over 15 years. He was also Programme Director of CINDI-Canada and Director of the WHO Collaborating Centre for Policy Development in the Prevention of Noncommunicable Diseases, Health Canada. Firmly committed to the cause of health, Dr Petrasovits was the architect behind the International Heart Health Declarations and behind an international movement to promote heart health.

In the WHO CINDI Programme, Dr Petrasovits led the developmental work to establish methodologies for monitoring the implementation processes in the prevention and control of chronic disease. He also pioneered the use of modern information technology in promoting heart health within the G7–G8 framework of collaboration on improving the prevention, diagnosis and treatment of cardiovascular disease.

Dr Petrasovits was a central figure in the CINDI Ad Hoc Working Group on Policy Development. For many years, too, he served as Co-chair.

Dr Petrasovits was the visionary leader of the CINDI movement and we owe him an enormous debt. He was the inspiration, conscience, source of energy, and discreet leader of very many health professionals, particularly those in the field of chronic disease. He will be sadly missed – but together the CINDI and CARMEN member countries will ensure that his legacy lives on.

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Introduction

According to recent projections of the global burden of disease, by the year 2020, NCD will be the predominant cause of ill-health both in the developed and the developing countries *(11)*. The impending burden of NCD was recognized by WHO already in the mid-seventies.

During the period 1978–1981, WHO undertook a pioneering initiative to develop an integrated approach to NCD prevention and control. At the WHO meeting on an integrated programme for the prevention and control of NCD convened by WHO Headquarters and the Regional Office for Europe in Kaunas, Lithuania, in 1981, the concept of the integrated approach to the prevention and control of NCD was formulated and principles of international collaboration for the implementation of the approach were proposed *(7, 12)*. The definition of the integrated approach is based on the evidence that major noncommunicable diseases share several risk factors and implies that common action against them should be taken. This pioneering idea was followed up and in 1983 the Countrywide Integrated Noncommunicable Intervention (CINDI) programme was established by the WHO Regional Office for Europe to support Member States in their efforts to address the issues of NCD prevention and control at national level in a practical manner. Based on the CINDI protocol and guidelines *(1)*, in 1995 the WHO Regional Office for the Americas initiated *(4)* a similar programme: Conjunto de Acciones para la Reducción Multifactorial de Enfermedades No Transmisibles (CARMEN).

The CINDI and CARMEN programmes are first and foremost action programmes. The preventive intervention paradigm of the programmes is based on promoting international collaboration on the application of health promotion and disease prevention experience gained through effective interventions in high-risk groups and entire populations *(13, 14)*. The participating countries implement and evaluate national programmes with the overall aim of improving the health of populations by reducing mortality and morbidity from major NCD through integrated preventive intervention *(1)*. The countries participating in the CINDI and CARMEN are committed to the prevention and control of NCD through the integrated approach, which entails: combining health promotion and disease prevention efforts; developing intersectoral collaboration and community involvement; enhancing the role of health professionals in health promotion and disease prevention; establishing adequate health information systems for monitoring and making better use of existing resources.

The second study of the comparative analysis of NCD policy development and implementation processes examines the results of their efforts. It is the sequel to the comparative analysis of NCD policy development and implementation processes in CINDI, carried out in 1994. The results of this first study were presented at the European Health Policy Conference held in Copenhagen in 1994 *(6)*. Both studies were commissioned by the Council of CINDI Programme Directors. The CARMEN programme was involved in the second study from the outset.

Because the vast majority of countries included in the study belong to the CINDI programme, the aggregate results and the conclusions apply mainly to CINDI. The inclusion of CARMEN enriches the study by providing information on programmes from health systems other than those of Europe and North America *(15)*. However, the lessons learned from the study will be of benefit to both the CINDI and the CARMEN programmes alike.

Study Methodology

Design

The second study was designed by the Ad Hoc Working Group on Policy Development in close collaboration with the WHO Collaborating Centre for Policy Development in the Prevention of Noncommunicable Diseases, Health Canada. The working group included participation from both the CINDI and the CARMEN networks and the Centers for Disease Control and Prevention, Atlanta, USA and was supported by the WHO Regional Offices for Europe and the Americas.

The study was built on the experience gained in organizing and carrying out the first study in 1994. The design of the study began at a meeting of the Working Group held in Canada in November 1998 to define the objectives. It was agreed that the second study would create an opportunity for new participating countries to provide information on the origins (processes, factors and resources) of their programmes, on processes of policy development and strategic planning, on marketing and resource mobilization and on strategies used for the implementation of the integrated approach. It was also agreed that increased emphasis should be put on learning how the national CINDI and CARMEN programmes collaborate and what strategic issues they face. How can the experience gained in the programmes be disseminated beyond the demonstration areas? How are the CINDI and CARMEN programmes positioned with respect to primary health care and public health services? Special emphasis was placed on finding out what changes had occurred regarding programme organization, resources and partnerships since the first study.

It was decided that the study instrument would be a semi-structured questionnaire for the collection of mostly qualitative data (Annex 1). The questionnaire used for the first study was modified to accommodate the new questions. Out of a pool of over 100 possible questions, 74 were selected and arranged in the following 12 sections: origins of the programme; programme organization and resources; partnerships; programme scope and current areas of emphasis and main projects; processes of policy development and strategic planning; marketing and resource mobilization of the programme; interaction with WHO initiatives and other countries programmes; programme evaluation; programme success and sustainability; health systems; dissemination and deployment; programme strategic issues for the future.

Analysis and preparation of the report

A meeting of the Ad Hoc Working Group on Policy Development was convened in Canada in 2000 to review the responses to the questionnaire and to advise on the methodology for data reduction, tabulation and analysis.

An Editorial Committee was set up to assess the responses received for completeness and quality, to carry out the analysis and to draft the report. The Editorial Committee met in Canada in April 2000 to finalize the first draft report, which was submitted to the Ad Hoc Working Group on Policy Development. The first draft report was then presented and discussed at the annual meeting of the CINDI Programme Directors, held in Malta in June 2000.

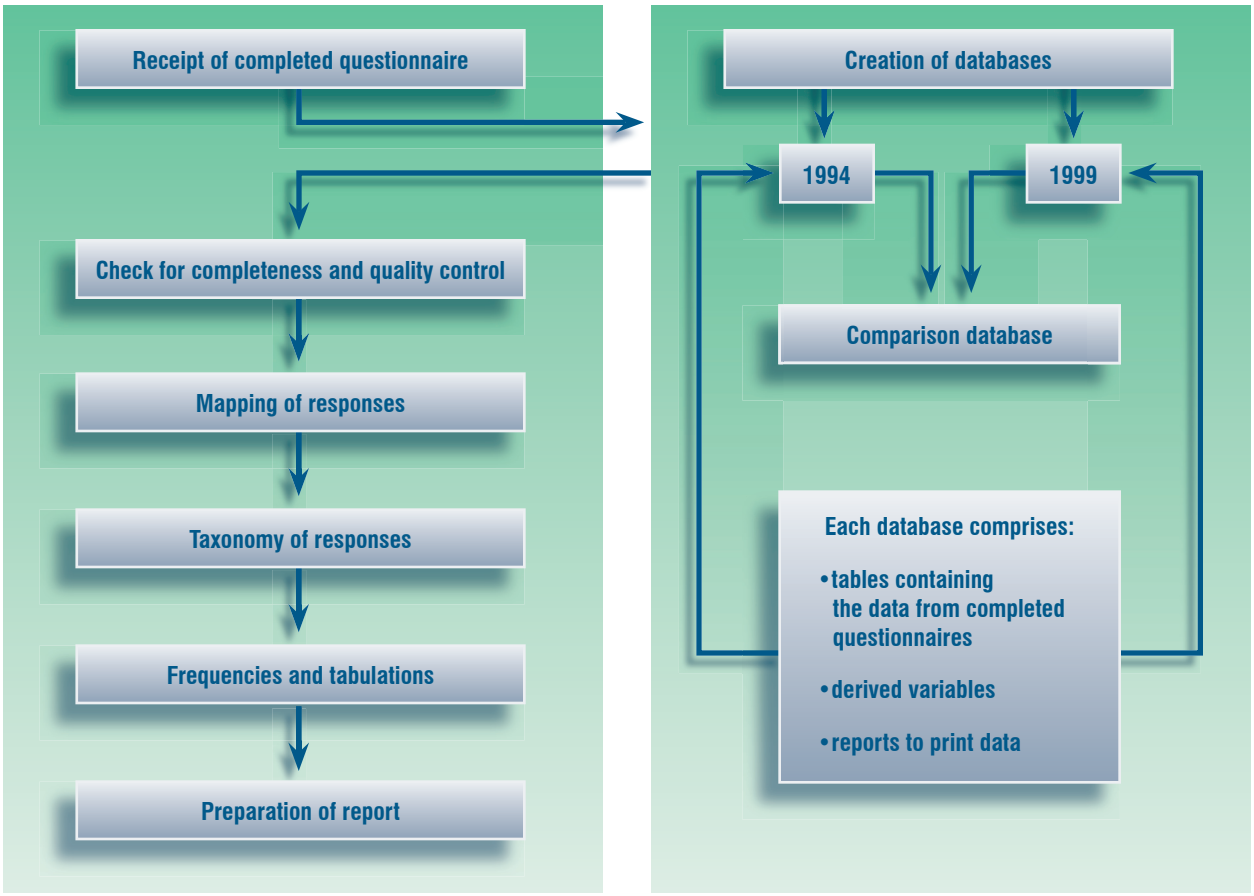
The Editorial Committee met again in December 2000, January 2001, March 2001 and August 2002 to complete the draft report.

The analysis and the interpretation of the data followed the principles of qualitative research. The following methodology for the analysis was adopted:

1. All responses were examined with respect to completeness, quality and pertinence.
2. An analysis unit was a participating country programme. The composition of units for analysis was 27 CINDI country programmes and three CARMEN country programmes.
3. Countries responses were mapped. An example of the response mapping is presented in Annex 3.
4. A taxonomy was defined and mapped responses were classified for tabulation and analysis. This process included triangulation of responses by the members of the Editorial Committee.
5. The preponderant types of response and the response rate were determined by counting the responses.
6. Tables were calculated.
7. The responses from CINDI countries that participated in the first and the second studies were compared where appropriate. Since the CARMEN programme was first established in 1997, CARMEN network countries had not participated in the first study.

The process of the analysis and the steps taken to develop the databases are illustrated in Figure 1.

*Figure 1: **Flow chart of data analysis and development of the database***

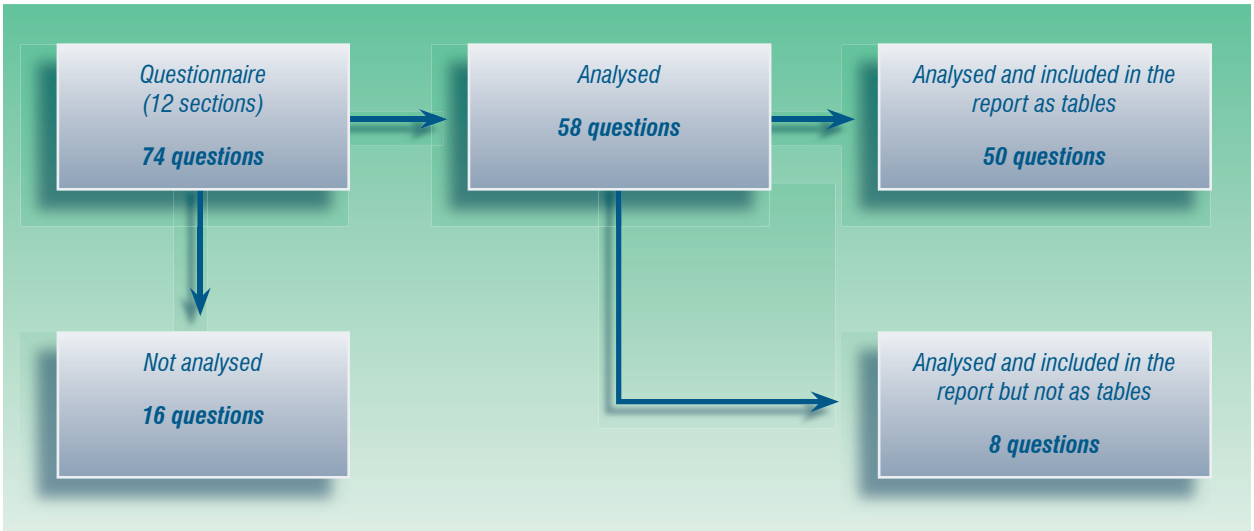


A computerized qualitative database was established using Microsoft 2000 Access Software. The Ad Hoc Working Group on Policy Development recommended setting up this database in CINDI-Canada to take advantage of the methodology for and expertise in this type of qualitative database already existing in Canada.

The information collected was very rich. It is not possible to present in this report all the information analysed. Figure 2 shows that, out of the 74 questions included in the questionnaire, 58 were analysed for this report. The decision to exclude 16 questions was made by the Editorial Committee. The results pertaining to 50 of the 58 questions analysed are presented as tables; the results relating to the remaining 8 questions are reported within the text.

A number of questions allowed multiple responses. This fact is reflected in all the relevant tables. In order to make reading easier, the results of the analysis of responses are presented in the same sequence as the questions asked. Some of the text describing the tables is supplemented by specific information where available.

Figure 2: ***Analysis of questions***



Methodological challenges

Qualitative research in health science is a relatively new field. It has been used in social, anthropological and political science in carrying out case-studies and evaluations. While quantitative research responds to the question of whether a programme does work or not, qualitative research describes the process and explains why a programme works or not and what factors determine its success or the lack of it.

There is an increasing use of qualitative research for evaluation in health science. For example, CINDI-Canada has extensively used qualitative research methodology for data collection, the design and establishment of databases and the analysis of process evaluation data within the Canadian Heart Health Initiative. Another example of the use of qualitative research in health science is the Handbook for Process Evaluation in Noncommunicable Disease Prevention *(3)* prepared by CINDI participating countries.

Qualitative data reflect concepts and are presented in the form of descriptive words rather than numbers. A central challenge in the use of qualitative data is that the methods of data reduction and analysis are not as well formulated as those for quantitative data, such as those used in epidemiology and statistics *(16)*.

The challenges involved in carrying out the study were numerous. At the design stage compromises had to be made in defining the questions in order to accommodate the differences between the health systems of the countries participating in the study. At the analysis stage, the establishment of a database and the lack of an established methodology for carrying out a qualitative analysis were two major hurdles. In data analysis, the basic problem was how to interpret the qualitative data and glean as much knowledge as possible from them. The Ad Hoc Working Group on Policy Development referred both to published literature and to the experience of the CINDI and CARMEN programmes in using qualitative approaches.

Qualitative analysis requires the development of typical response categories for taxonomy (classification) of responses. In this study, the response categories were not known in advance and had to be elaborated from the body of responses. For example, the following categories were elaborated for responses to the question on CINDI and CARMEN national programme activities to support NCD prevention through primary health care: support to training of health professionals; the development of preventive guidelines; and the creation of coalitions in support of primary health care issues.

It should also be noted that by determining response categories from the responses to the questions, the qualitative study defines the dimensions of the issues raised (for example, the response categories relating to the question on the benefits from joining the CINDI or CARMEN networks).

There is a risk that the interpretation of the responses and the taxonomy created may differ from analyst to analyst. In this study, to minimize this risk, the interpretation of responses and the creation of taxonomies were carried out by two subgroups of the Editorial Committee, followed by discussion to resolve any differences in assessment.
Another methodological challenge was the transferability of results to other settings. This is inherent to qualitative research in general. In contrast to epidemiological research, there are no simple methodologies by which the results of a qualitative enquiry can be generalized beyond the set of units of analysis used in the study. A method proposed to enhance generability is the process of triangulation – the collection of information from different individuals and different settings *(17, 18)*. This approach is an option for this type of policy research for the future.

There is also the risk that respondents will interpret the questions differently. Even the way a concept is defined can affect responses. In this study, it appeared that this was the case in a few instances. Since a number of relevant glossaries were available to CINDI and CARMEN programmes, no separate glossary was elaborated for this study.

It should also be noted that no response or partial response was high in some sections of the questionnaire. This may have introduced bias in the interpretation of the overall results. Therefore, in cases where there was a high rate of no response to a specific question the response counts provided an idea of the position of the majority of the programmes on that question. It would be inappropriate to consider the response counts for such questions as statistically generalizable to all CINDI and CARMEN programmes.

In summary, although the analysis methodology needs to be further improved, the results of the study provided a very valuable insight into policy development and implementation processes in programmes and should be useful in debating future directions for CINDI and CARMEN.

Results

Participation

The questionnaire was distributed in 1999 to Programme Directors for completion and all responses were received by mid-April 2000. All of the countries participating in the CINDI (27 countries) and CARMEN programmes (three countries) took part in the study (Annex 2). It should be noted that Canada is a member of both the CINDI and the CARMEN programme networks. In this report, information from Canada is analysed as CINDI data.

In addition, CINDI-Canada and CINDI-Russian Federation collected data on policy development and implementation processes in programme demonstration areas (one in CINDI-Canada and eight in CINDI-Russian Federation). This information requires a separate analysis.

Programme origins

WHO has been promoting the development of integrated programmes on NCD prevention and control since the early 1980s. Table 1 shows that in 1983–1984 the first six countries joined the CINDI network[4]. One quarter of the participating countries established collaboration with WHO regarding CINDI before 1987 and half of them joined the CINDI network before 1993. Canada and Chile were first two countries to join the CARMEN network in 1997. Thus, the period of programme implementation at the time of the second study varied from country to country ranging from 15–20 years to 2–3 years.

*Table 1: **Year of initiation[5] of CINDI or CARMEN country programmes***
Question 2a (part 1)

CINDI		CARMEN	
Country	*Year*	*Country*	*Year*
Austria	1985	Canada	1997
Belarus	1995	Chile	1997
Bulgaria	1984	Cuba	1999
Canada	1988	Puerto Rico	1998
Croatia	1994		
Cyprus	1999		
Czech Republic	1983		
Estonia	1994		
Finland	1984		
Germany	1986		
Hungary	1984		
Italy	1999		
Kazakhstan	1995		
Kyrgyzstan	1995		
Latvia	1999		
Lithuania	1983		
Malta	1984		
Poland	1992		
Portugal	1987		
Romania	1999		
Russian Federation	1983		
Slovakia	1993		
Slovenia	1993		
Spain (Catalonia)	1993		
Turkmenistan	1995		
Ukraine	1994		
United Kingdom (Northern Ireland)	1989		

[4]Country names and borders have changed since the start of the CINDI Programme and therefore current names have been used.

[5]The year mentioned was when the agreement on collaboration regarding the CINDI or CARMEN national programmes was signed between the country in question and WHO.

The main triggers in a country for establishing the CINDI or CARMEN programmes were government directives, health care reform, support by the ministry of health or public sector and contacts made during CINDI- or CARMEN-related events (Table 2).

*Table 2: **Triggers for establishing CINDI and CARMEN programmes***
Question 2a (part 2) (multiple responses)

Types of trigger	Number of programmes
Government directives; health care reform; support by the ministry of health or the public sector	8
Contacts and participation in conferences, courses (for example, the WHO meeting, Kaunas, 1981 (7); the course "North Karelia project: international visitors' programme")	8
Contacts with WHO NCD programmes and/or CINDI Programme Directors	4
Collaboration with WHO; visits to WHO Headquarters and/or WHO Regional Offices; WHO publications	4
Positive experience with, and continuation of, cardiovascular prevention initiatives	4
Reaction to the negative development of the health status of the population	3
Recognition of need for population approach	1
Dissemination of demonstration area experience	1
Methods and perceived value of the integrated approach	1
No response	7

Among 30 countries, 20 reported that having a national health policy framework had helped the establishment of CINDI or CARMEN programme. In 15 of these countries the national health policy framework addressed NCD prevention (Question 2e – table not shown).

The lack of financial, human and material resources and the lack of motivation about and orientation towards preventive activities by the health authorities were the most frequent challenges mentioned by the programmes (Table 3). The national context was also an important factor: some countries reported that economic crises and structural reforms were challenges in programme establishment.

*Table 3: **Challenges in establishing CINDI or CARMEN programmes***
Question 2f (multiple responses)

Challenges or obstacles	Number of programmes
Lack of financial, human or material resources	15
Lack of motivation about and orientation towards preventive activities by the health authorities	7
Economic crises and structural reforms	3
Organizational challenges to integrate the programme into the structures already in place	3
Programme administration	2
Establishing collaboration with representatives of ministries	2
Lack of community motivation	1
Lack of experience in intersectoral collaboration	1
No challenges or obstacles perceived	3
No response	2

Most CINDI programmes (23 of 27) were initially established at the demonstration area level (Table 4). Six CINDI countries started the programme at national level. Three of the four CARMEN programmes were established from the outset both at the national and the demonstration area levels.

In all instances, when the programmes were launched, the health authorities of the countries agreed to participate and were primarily involved in negotiating with WHO for the establishment of collaboration regarding CINDI.

*Table 4: **Organization of programmes on initiation***
Question 2g

Programme	Number of programmes		
	Country level	Demonstration area level	Country and demonstration area levels
CINDI	4	21	2[a]
CARMEN	–	1	3[a]

[a]Canada is counted both in CINDI and in CARMEN.

Countries reported most often that opportunities for international collaboration, exchange of implementation experience and methodological support available through CINDI and CARMEN were the benefits expected from joining the CINDI or CARMEN programme network (Table 5). Other benefits included the opportunity to introduce new health promotion ideas and intersectoral and interdisciplinary approaches, and to promote the integrated prevention approach within the health systems and the health care reform agenda. Notably, the benefits expected from joining CINDI did not change appreciably between the first and the second studies.

*Table 5: **Expected benefits from participation in CINDI and CARMEN programme networks***
Question 2h (multiple responses)

Expected benefits from participation in CINDI and CARMEN	Number of programmes
International collaboration and exchange of experience with other CINDI or CARMEN programmes	16
Methodological support, tools, models and experience to implement NCD prevention[a]	12
Promotion of integrated prevention within the health system and health care reform agenda	8
Enhancement of resources through international CINDI network	6
Reduction of NCD and their risk factors	4
Development of policy and strategies; building consensus	4
Increased financial support; strengthening of national programmes	4
Introduction of health promotion, interdisciplinary, intersectoral, population, community approaches	3
Credibility through association with WHO	2
Visibility for CINDI and CARMEN programmes	2
Increased public participation; dissemination of knowledge to public	1
No response	2

[a]Enhancement of risk factor monitoring, professional education, policy development, implementation, evaluation.

Health policy changes that had taken place since the first study and that were affecting the programmes were reported by 10 of the 14 countries that answered Question 2i (Table 6). The changes were related to health policy and strategy development in all ten cases. A more in-depth analysis of responses revealed that these included changes in policy on health promotion, determinants of health, primary health care and NCD.

Structural and organizational changes were mentioned by almost half of the countries that responded to the question. An in-depth analysis of the responses indicated that these changes included regionalization, decentralization and health care reform, reorganization of public health services or reorientation of public health institutes, and the creation of new health promotion services.

The health policy changes affecting programmes that were mentioned less often related to the development of intervention programmes. An in-depth analysis demonstrated that intervention programmes were developed in areas such as tobacco control or increasing the awareness of health professionals about the integrated approach.

*Table 6: **Health policy changes affecting CINDI programmes since the first study**[a]*
Question 2i (multiple responses)

Type of change	Number of programmes
Health policy and strategy development	10
Structural or organizational	6
Development of intervention programmes	4
Financing	2
Programme visibility and influence	1
No changes since the first study	4
No response	6

[a]Only programmes that were in existence during the first and second study are tabulated (N=20).

Organization and resources

The protocol of establishing a national CINDI or CARMEN programme requires identification of the institution that will manage programme implementation. Most commonly, CINDI programmes were based in institutes dealing with health research and development, followed by university departments and medical academies (Table 7). About one quarter of the CINDI and CARMEN programmes (four CINDI countries and three CARMEN countries) were based in the ministries of health.

*Table 7: **Types of institutions where CINDI or CARMEN programmes were based***
Question 3a (multiple responses)

Institution	Number of programmes
Institutes of health: public health, prevention, cardiology, health promotion	16
Ministry of health	7
University, medical faculty, medical academy	7
Hospital, polyclinic (public or private)	2
Medical association	1
Community health centre	1

About 50% of CINDI participating countries reported organizational changes having taken place in programme since the first study (Table 8). Diverse changes were reported, most of them pertaining to programme management and expansion.

*Table 8: **Organizational changes in CINDI since the first study**[a]*
Question 3d (multiple responses)

Type of change	Number of programmes
Programme management changes	6
Programme expansion to new demonstration areas or regional level	5
Partnerships, coordination and support from partners	3
Institutional responsibility for programme	3
Reduction in staff	3
New programme orientation	1
No changes	7
No response or not applicable	2

[a]Only programmes that were in existence at the time of the first and the second study are tabulated (N=20).

Regarding resources, it was typical for programmes to have several sources of funding (Table 9). Most of countries had up to four funding sources.

*Table 9: **Number of funding sources***
Question 3f

Number of sources	1	2	3	4	5	6	7	8	9	*No response*
Number of programmes	6	4	8	5	0	1	2	0	1	3

The national government was reported as the most frequent source of funding as well as the most frequent main source of funding (Table 10). WHO was indicated as a funding source by five countries. Two thirds of the programmes reported pronounced increases in resources since the first study, namely through contributions from governments and the private sector (comparison of the data from the first and the second studies – table not shown).

*Table 10: **Sources of funding of programmes***
Question 3f (multiple responses)

Source of funding	Number of programmes	Number of programmes where main source of funding
National government	25	21
Private sector[a]	14	1
Local government	9	1
Institutes	8	2
Non-governmental organizations (NGOs)[b]	7	0
Other[c]	6	1
WHO	5	0
No response	0	4

[a]Includes private health care providers, firms, industry.

[b]Includes national foundations.

[c]Includes individuals, international agencies other than WHO, contributions from other countries.

Countries were asked to report on intervention strategies. Table 11 shows intervention strategies for which capacity had been strengthened. About three-quarters of the programmes reported greater capacity in professional education. Half indicated that capacity had increased in monitoring and evaluation, policy development, public education, social marketing and community mobilization. Very rarely mentioned were development of partnerships, programme marketing, development of legislation, intersectoral collaboration. As a methodological note, it is worth pointing out that Question 3h provided a list of possible answers. This may have caused an inflation of the counts for the topics listed, compared with those for topics not listed. When compared with the first study, the results of the second study indicate that areas where capacity has increased most were professional education and programme monitoring and evaluation.

*Table 11: **Intervention strategies where capacity in CINDI and CARMEN programmes has increased***
Question 3h (multiple responses)

Type of intervention strategies	Number of programmes reporting increased capacity
Professional education	23
Monitoring and evaluation	16
Public education, social marketing, community mobilization	15
Policy development	14
Dissemination	8
Programme development and implementation[a]	2
Programme marketing	1
Legislation development	1
Intersectoral collaboration	1
Partnership development	1
No response	2

[a]Includes needs assessment, planning and coordination.

In response to the question about which intervention strategies were in most need of increased capacity, countries mentioned that public education, social marketing and community mobilization, monitoring and evaluation, policy development, dissemination were the strategies most in need of stronger capacity (Table 12).

*Table 12: **Intervention strategies requiring increased capacity***
Question 3i (multiple responses)

Type of intervention strategies	Number of programmes indicating a need for higher capacity
Public education, social marketing, community mobilization	16
Monitoring and evaluation	13
Policy development	11
Dissemination	10
Professional education	4
Programme development and implementation[a]	4
Primary prevention	2
Resource mobilization	1
Information technology	1
No response	4

[a]Includes needs assessment, planning and coordination.

Partnerships

CINDI and CARMEN country programmes reported a wide range of collaborative partners. There were four groups of most frequently mentioned major partners (Table 13): health institutes or universities, national health departments, international partners, and professional organizations. International partners were paramount and included international foundations, international professional organizations, the WHO Regional Offices for Europe and the Americas and others. Non-health government agencies, the private sector, and nongovernmental organizations were also indicated frequently as major partners. A number of programmes mentioned having partnerships with the health system, namely national and local health administration and public health services. The media, municipal offices and other groups (church, community groups) were also mentioned as collaborative partners.

*Table 13: **Major collaborative partners***
Question 4a, 4b (multiple responses)

Type of partner	Number of programmes
Health institutes/universities	14
National health departments	13
International[a]	12
Professional organizations	10
Private sector	9
NGOs[b]	9
Public health services	6
Government non-health	6
Local health departments	4
Media	4
Municipal offices	3
Other[c]	5
No response	7

[a]Includes international foundations, international professional organizations, WHO Regional Office for Europe, WHO Regional Office for the Americas/Pan American Sanitary Bureau, other United Nations agencies.

[b]Includes sport unions, trade unions.

[c]Includes churches, community groups.

Table 14 shows the main type of support provided by the CINDI and CARMEN country programmes to collaborative partners. Most countries provided general programme support, exchange of information and capacity building. Some countries mentioned policy development, visibility and financial support.

Table 14: ***Support provided by CINDI or CARMEN programmes to collaborative partners***
Question 4c (multiple responses)

Type of support	Number of programmes
Programme support	14
Capacity building	13
Information exchange	12
Policy development	6
Evaluation	2
Visibility	2
Financial	2
No support provided	3

Table 15 indicates the type of partnerships that programmes would like to have. By and large, CINDI and CARMEN programmes were interested in having more partnerships within the health sector and, to a lesser extent, within the non-health and the private sectors.

Table 15: ***Institutions or organizations which CINDI and CARMEN programme would like to have as partners***
Question 4d (multiple responses)

Type of organization	Number of programmes
Non-health sector	6
Other ministries (education, sport, agriculture)	3
Educational institutions	3
Health sector	13
Primary care	3
Health professionals associations	3
Health services	2
Public health	2
Acute care	1
Central health agencies	1
Cancer agencies	1
Private sector	4
General	2
Insurance	1
Pharmaceutical	1
Other	4
NGOs	3
Communities	1
None	3
No response	8

Table 16 shows that CINDI and CARMEN contributed to preventive activities at various levels of government mainly by providing policy and strategy frameworks and programme development and implementation. Other areas mentioned, although to a lesser extent, were provision of information and materials and advice on prevention.

Table 16: ***Contribution of CINDI and CARMEN to preventive activities at various levels of government***
Question 4e (multiple responses)

Types of contribution	Number of programmes
Provision of policy and strategy frameworks	16
Programme development and implementation	8
Provision and distribution of information and materials	6
Advocacy on prevention	4
Provision of technical advice	2
Clinical prevention guidelines	1
None	1
No response	2

When discussing partnerships, it is important to analyse not only how CINDI and CARMEN programmes contribute to preventive activities at various levels of government, but also what type of the government support the programmes receive. This support was frequently financial and political. Support was also received in the areas of organization, policy, human resources and marketing (Table 17).

Table 17: ***Types of governmental support received by CINDI and CARMEN***
Question 4f (multiple responses)

Type of support	Number of programmes
Financial	15
Political	9
Organizational	4
Policy	3
Human resources	2
Marketing	1
None	1
No response	3

Half of the CINDI programmes reported an increase in number of partners between the first and the second studies (Table 18). In seven programmes there had been an increase in resources provided by partners. No programmes reported a decrease in the number of partners.

Table 18: ***Changes in CINDI programme partnerships since the first study[a]***
Question 4g

Changes	Number of programmes
in number of partners:	
Increased	10
No change	8
Decreased	0
No response	2
in contributions of partners:	
Increased	7
No change	7
Decreased	2
No response	4

[a]Only programmes that were in existence at the time of both the first and the second studies are tabulated (N=20).

Scope: current areas of emphasis, main projects

To examine programme scope, programme priority areas were analysed with respect to the target NCD, risk factors, population target groups, and intervention settings. Table 19 shows that the programmes prioritized the multifactorial approach to NCD prevention: more than three-quarters of the participating countries prioritized action to combat three or more risk factors.

*Table 19: **Number of risk factors reported as priority for action***
Question 5a

Number of risk factors	Number of programmes
1	0
2	3
3	4
4	4
5	6
6	6
7	1
8	1
9	1
10	0
11	1
No response	3

Over 50% of the programmes indicated cardiovascular diseases, cancer and diabetes as target diseases (Table 20). Among lifestyle factors, tobacco control was reported as being of the highest priority, followed by the need to address physical inactivity and unhealthy diet. The prevention and control of hypertension was also given high priority by most of the programmes. Among target population groups (Table 21), children and youth ranked highest; accordingly, schools were mentioned as the main setting for action. It is also important to note that some countries included mental health and stress in their programmes and the elderly or disadvantaged as target population groups (Table 21).

A comparison between the first and the second studies shows that, in the interval, the programmes expanded the scope of their priorities to include women and disadvantaged as target groups, and community settings as an intervention site. It is also worth noting that the topics mentioned by countries correlate closely with those identified in the survey on programme priorities carried out in 1995 in connection with the preparation of the CINDI-EUROHEALTH Action Plan *(19)*. The Action Plan specified priorities for action within NCD prevention in countries of central and eastern Europe over the period 1995–2000.

Table 20: ***CINDI and CARMEN programme priority areas***
Question 5a (part 1) (multiple responses)

Topic	Number of programmes
Diseases:	
Cardiovascular diseases or coronary heart disease, cerebrovascular disease	23
Diabetes	15
Lung cancer	11
Breast cancer	5
Other forms of cancer	10
Mental health	3
Disability	1
Other diseases[a]	9
Lifestyle factors:	
Tobacco	25
Reduced physical activity	18
Unhealthy diet	18
Obesity	12
Alcohol abuse	9
Drug use	5
Stress	4
Other lifestyle factors	2
All lifestyle factors, integrated	1
Biological factors:	
Hypertension	19
Hypercholesterolaemia	10
No response[b]	0

[a]Other diseases include: injuries, musculoskeletal disorders, liver cirrhosis.
[b]All programmes responded to at least one of the sections.

Table 21: ***CINDI and CARMEN programme priority areas***
Question 5a (part 2) (multiple responses)

Topic	Number of programmes
Target population groups:	
Children	16
Youth	12
Adults	10
Women	7
General population	7
Disadvantaged	4
Elderly	3
Other groups	6
Intervention settings:	
Schools	12
Communities	10
Worksites	9
Public health units	5
No response[a]	0

[a]All programmes responded to at least one of the sections.

About two thirds of the programmes reported some degree of involvement in health legislation or administrative regulations. Table 22 shows that more than half of these had been involved in the enactment of legislation or regulations on tobacco control. Less than one quarter of the programmes was involved in legislation or regulations relating to health promotion and NCD prevention policy.

Table 22: ***CINDI and CARMEN involvement in the enactment of health legislation or administrative regulations***[a]
Question 5b (multiple responses)

Topic	Number of programmes
Tobacco control	14
Health promotion and NCD prevention policy	6
Health care reform	3
Nutrition	3
Health protection	3
Alcohol control	1
Postgraduate training	1
No response	1

[a]Among programmes that reported some involvement (N=22).

Table 23 presents the analysis of the intervention strategies used by countries. Professional education, programme monitoring and evaluation were the strategies most commonly used by programmes, followed by policy development, and public education and mass media. Marketing and organizational development, practice guidelines and dissemination were mentioned by 30% of the countries. It is worth noting that the rank order of the main strategies used almost matches the ranking order of strategies for which programmes reported increased capacity (Table 11).

The methodological note given in the discussion of Table 11 also applies to Table 23; that is, the questionnaire listed a choice of responses that might have prompted the respondents to select them, thus inflating the counts.

*Table 23: **Main intervention strategies used by CINDI and CARMEN programmes***
Question 5d (multiple responses)

Type of intervention strategies	Number of programmes
Professional education	26
Monitoring and evaluation	20
Policy development	16
Public education and mass media	14
Marketing and organizational development	9
Practice guidelines	6
Dissemination	5
No response	2

Processes of NCD prevention policy development and strategic planning

In 28 countries, a health policy document relevant to NCD prevention had been issued by the ministry of health (Table not shown). Table 24 shows the involvement of the CINDI and CARMEN programmes in national NCD prevention policy development. CINDI and CARMEN programmes reported having contributed to the document in 18 of these countries.

*Table 24: **Involvement of CINDI and CARMEN in NCD prevention policy development***
Questions 6a, 6c

Policy development	Number of programmes		
	Yes	*No*	*No response*
Programme had input into national policy document[a]	18	6	4
Programme prepared own NCD policy document	14	13	3

[a]Includes programmes that have a national NCD policy document (N=28).

Fourteen programmes reported having prepared their own policy document on NCD prevention. Among these, a significant number reported that their document had been adopted by jurisdiction, ministries of health, at various levels of government, by governmental non-health agencies or by the Council of Ministers or Parliament, as well as that it had been used by other countries implementing CINDI and CARMEN programmes (Question 6d – table not shown).

The degree and variety of involvement of various organizations in determining priorities for projects and activities are indicators of the strength of collaborative links and of the effort made to develop a consensus in policy development. Therefore, an attempt was made to study the processes programmes used to determine priorities for projects and activities and to clarify which organizations were involved in making priority decisions. Only 50% of the participating countries responded to the question about which organizations were involved in determining priorities for projects and activities (Table 25). Most of the responses pointed to the involvement of partners in the health sector. Involvement of the non-health and private sectors in priority-setting was reported in one third of countries that responded to this question.

Table 25: ***Involvement of organizations in setting priorities for projects and activities***
Question 6b (part 2) (multiple responses)

Type of organization	Number of programmes
Health services – national	8
Health services – regional	3
Health services – municipal	4
Medical research institutes	4
Professional organizations	4
Government non-health	2
NGOs, voluntary agencies	2
Private sector	1
No response	15

It is important to base decision making on evidence. Table 26 shows that about two thirds of the programmes reported a high level of the use of epidemiological and needs assessment information in programme decision making.

Table 26: ***Use of epidemiological and needs assessment information in programme decision making***
Question 6e

Level of use	Number of programmes
High level of use	19
Little or no use	6
No response	5

Marketing and resource mobilization

The no response rate to questions in this section was higher than in any other section of the questionnaire. This may reflect a lack of attention to marketing as a programme implementation strategy. Less than half of the CINDI and CARMEN participating countries reported marketing their programmes (Question 7b – table not shown). Nine programmes reported having made a systematic organized effort to market the programme (Question 7a – table not shown). Comparison of the results of the first and second studies indicates no increase in marketing activities.

Among 20 countries that responded to the question on marketing targets (Table 27), only one country reported marketing the programme to the media and the public and two reported marketing the programme to nongovernmental organizations. Commonly mentioned targets were the national and local health authorities, government departments outside the health sector, and the private sector. About one quarter of the programmes (Question 7g – table not shown) had actually established relations with the private sector while others were beginning to forge such relationships.

Table 27: ***CINDI and CARMEN marketing targets***
Question 7c (multiple responses)

Marketing targets	Number of programmes
National health agencies, ministries of health, health insurance agencies	9
Private sector	8
Government non-health departments, parliament	6
Health system: primary health care, public health agencies	6
Health professional organizations and professionals	5
Local health agencies, regional health councils, municipal government	4
International agencies	4
Universities	3
NGOs	2
The media and the public	1
Community associations	1
No response	10

Seventeen countries provided information on barriers to programme marketing. As shown in Table 28, the barriers most often reported were lack of resources, lack of the organizational structure and lack of expertise. Nine of the 30 programmes had made systematic, organized efforts to market the programme and only one of these referred to the lack of a marketing strategy as a barrier to marketing (Question 7a – table not shown).

Table 28: ***Barriers to programme marketing***
Question 7e (multiple responses)

Type of barrier	Number of programmes
Lack of resources	7
Lack of organizational structures	4
Lack of professional expertise	4
Lack of access to the media to reach the public	2
CINDI or CARMEN not a priority for the administration	2
Lack of marketing strategy	1
Challenge of coalition building	1
Changes in government administration	1
Disappointment in outcomes of some community prevention programmes	1
Lack of private sector in country	1
Lack of interest in the population	1
Little understanding of value of cooperation with WHO	1
No response	13

Table 29 shows that countries experienced various benefits from marketing. Those most often mentioned were an increase in the number of partnerships, and financial and technical support. From a methodological viewpoint, it should be noted that the counts for the various types of benefits may have been inflated owing to the fact that some types of benefit are listed in the questionnaire as response examples.

Table 29: ***Benefits of marketing CINDI and CARMEN***
Question 7f (multiple responses)

Type of benefit	Number of programmes
Increase in number of partnerships	9
Better financial or technical resources	9
Political support	3
Enhanced priority for prevention	3
Increased CINDI or CARMEN prestige	2
Access to target population groups	2
Increased visibility	1
No benefits	1
No response	15

International collaboration

Table 30 illustrates the extent to which the programmes collaborate with each other and with other WHO initiatives. Fifteen CINDI and CARMEN countries participated in one or more CINDI or CARMEN Working Groups on international collaboration priority issues (policy development; hypertension; nutrition; smoking; physical activity; monitoring, evaluation and research; children and youth; guidelines for and training in preventive practice; workplace). An in-depth analysis indicated that several countries participated in three to five CINDI Working Groups. The most commonly mentioned participation was in the Quit and Win smoking cessation campaign organized by the CINDI Working Group on Smoking. Ten programmes collaborated with one or more other WHO initiatives, the Health Promoting Schools project being the most commonly mentioned. Almost 50% of the countries had various collaborative activities with other countries. An in-depth analysis demonstrated that some of them were in collaboration with up to seven other CINDI or CARMEN participating countries.

Table 30: ***Collaboration of CINDI and CARMEN programmes; participation in other WHO initiatives***
Question 8b, 8c (multiple responses)

Type of collaboration or participation	Number of programmes
Participation in CINDI or CARMEN Working Groups (Question 8b)	15
CINDI Working Group on Smoking (collaboration on the Quit and Win smoking cessation campaign)	14
Participation in 3–5 CINDI or CARMEN Working Groups	5
Multilateral collaboration with other CINDI or CARMEN programme countries	14
Participation in other WHO initiatives (Question 8c)	15
Health Promoting Schools project of the WHO Regional Office for Europe	7
Healthy Worksites of the WHO Regional Office for Europe	2
Health Promoting Hospitals project of the WHO Regional Office for Europe	2
Healthy Cities project of the WHO Regional Office for Europe	2
Nutrition Action Plan of the WHO Regional Office for Europe	1
Diabetes programme of the WHO Regional Office for Europe	1
Tobacco programme of the WHO Regional Office for Europe	1
Primary health care programme of the WHO Regional Office for Europe	1
Regions for Health Network for Europe of the WHO Regional Office for Europe	1
WHO MONICA project	2
WHO Headquarters NCD strategy	1
WHO Headquarters DIAMOND[a] project	1
No participation in other WHO initiatives	8
No response	7

[a]Diabetes programme.

Table 31 examines how programmes perceived the benefits of the above-mentioned collaboration. The opportunity to share information and to gain access to experience, knowledge and expertise, as well as networking, appears to be a very valued benefit of international collaboration. NCD prevention policy development, access to methodology and technology related to prevention, as well as the opportunity to participate in research and the preparation of publications, were also considered valuable by some of the countries.

*Table 31: **Benefits of international collaboration***
Question 8d (multiple responses)

Type of benefit	Number of programmes
Exchange of information	18
Access to experience, knowledge and expertise	17
Access to networks	7
Access to technology and methodology	4
Policy development and support	3
Opportunity for participation in research, preparation of publications, international studies	2
Wider participation and increased enthusiasm of the population owing to international partnerships	1
Financial and cost-sharing opportunities	1
Increased credibility and visibility, e.g., association with WHO	1
No international collaboration	5
No response	2

Programme evaluation

Risk factor surveys are an obligatory component in CINDI and CARMEN programme evaluation. Table 32 indicates that most of the CINDI and CARMEN programmes in the interval between 1994 and 1999 carried out a risk factor survey within the five-year interval required by the programme protocol *(1, 4)*.

*Table 32: **Year in which the latest risk factor survey was conducted***
Question 9a

Year	Number of programmes
1992	2
1993	1
1994	1
1995	3
1996	1
1997	4
1998	6
1999	9
No response	3

An important development in support of process evaluation was the publication of the CINDI Handbook on Process Evaluation in Noncommunicable Disease Prevention published in 1999*(3)*. The Handbook was translated into Russian and Spanish. Responses to Question 9b (Table not

shown) showed that almost half of the programmes had begun to use the Handbook to document and analyse programme delivery processes.

Table 33 shows that evaluation findings were used mainly in connection with programming and risk factor trends assessment. A few countries used evaluation findings in setting priorities for action, NCD policy development or professional education. Various channels were used to publicize the evaluation findings but this was rarely through the media. Government and scientific publications were mentioned by most of the programmes as the channels used to publicize evaluation findings.

Table 33: ***Use of evaluation findings***
Question 9c (multiple responses)

Type	Number of programmes
How used	
Programming and evaluation including risk factor trend assessment	12
Information and training of health professionals	3
Policy development	3
Programme justification, setting priorities, collaboration	3
Not used	2
How publicized	
Publications: government and other	8
Professional journals	6
Conferences	4
Media presentations (TV, Radio)	3
Workshops or seminars	2
Quit and Win campaign or Tobacco Day	1
No response	11

Two thirds of the participating countries reported on the impact of evaluation findings on their programmes. Among these, approximately half reported that their evaluation results had had some impact on the planning and delivery of the programme or on the management and implementation of their programmes (Table 34).

Table 34: ***Impact of evaluation findings***
Question 9d (multiple responses)

Type of impact	Number of programmes
Planning and delivery	12
Support and funding for CINDI or CARMEN	3
Enhanced implementation	1
Enhanced methodology	1
Priorities, strategies, policies	1
Initiation of new projects	1
Help for marketing	1
Acceptance of the CINDI or CARMEN model for preventive intervention	1
Do not know	6
No response	5

Success and sustainability

Table 35 summarizes the criteria indicated by countries as assessing the success of the CINDI and CARMEN programmes. The responses were grouped into two categories: programme outcome criteria and programme process criteria. Not surprisingly, most programmes identified the reduction of NCD risk factors and the reduction of NCD morbidity and mortality as the main outcome criteria. A variety of process criteria for success was mentioned, dissemination to the national level and increased population coverage being the most cited. A comparison of the results of the first and the second studies suggests that the criteria for success indicated during the second study included more systemic aspects of programme implementation, such as sustainability or integration of the CINDI or CARMEN concept into the health system.

Table 35: ***Criteria for assessing programme success***
Question 10a (multiple responses)

Criteria for success	Number of programmes
Programme outcome criteria	
Reduction of NCD risk factors	14
Reduction of premature death, reduction in CVD and other NCD, CVD mortality, morbidity	6
Increased public awareness, attitudes and education	2
Supportive social and environmental change	2
Improved health-related lifestyles	1
Programme process criteria	
Sustainability	
Programme dissemination to the national level and increased population coverage	8
Institutionalization, integration of CINDI or CARMEN activities into the health system	2
Inter- and intra-sectoral collaboration	2
Health services	
Impact on health policy, preventive practice and human resources	2
Increased participation of health professionals	1
Extent of implementation of preventive practice in the health system	1
Policy and regulatory measures	
Existence of legislation to support healthy lifestyle	2
Existence of best practice guidelines for prevention	1
Existence of standards for evaluation of risk factor programmes	1
Marketing and visibility	
Visibility and recognition of CINDI and CARMEN programmes as authority in NCD prevention	3
Community mobilization	1
Recognition of prevention as a priority by government authorities	1
Recognition of CINDI and CARMEN as a valuable network for collaboration in health areas other than NCD	1
Perception of CINDI and CARMEN by the public, patients and partners	1
Management	
Transfer and improved utilization of new technologies	2
Increased and sustainable resource base	2
Existence of an organizational structure for CINDI or CARMEN	1
No response	1

The key programme accomplishments reported by the countries were: increased awareness and the successful adoption of the integrated approach towards NCD (the CINDI/CARMEN concept) or the programme model, enhanced collaboration among the public, health professionals and decision-makers, programme influence on health policy or health legislation, as well as the implementation of specific interventions (e.g. the Quit and Win smoking cessation campaign) (Table 36).

*Table 36: **Key accomplishments of the CINDI and CARMEN programmes***
Question 10b (multiple responses)

Accomplishments	Number of programmes
Successful adoption of the integrated approach to NCD (CINDI/ CARMEN concept) or programme model	9
Increased awareness of the integrated approach	8
Influence on health policy or heath legislation	8
Enhanced collaboration[a]	6
Implementation of specific intervention (e.g., Quit and Win smoking cessation campaign) projects	5
Increased capacity to conduct interventions	4
Improvement in risk factor trends	3
Improved professional training	3
Development of guidelines	2
Development of evaluation framework	1
No response	7

[a]Among health professionals, the public, policy-makers, NGOs and the media.

Table 37 indicates that the countries were facing numerous challenges for programme success and sustainability. About one third of the countries reported that the key challenges were to secure adequate financial and human resources and to establish coalition with relevant partners, and to reorient health services towards prevention.

*Table 37: **Key challenges for CINDI and CARMEN programmes success and sustainability***
Question 10c (multiple responses)

Challenges	Number of programmes
Securing adequate financial and human resources	8
Establishment of coalition with relevant partners	7
Reorientation of health services and training of health professionals in prevention	4
Maintenance and expansion of international collaboration	4
Political commitment	3
Programme progression to countrywide level	3
Integration of various health promotion programmes within country	3
Organization and linking programme within country	3
Increasing burden of NCD	3
Promotion of healthy lifestyle especially in women and youth	2
Cost–effectiveness evaluation	2
Building institutional capacity	2
Motivation of population for health behavioural change	2
Increasing influence on health policy	2
Monitoring and evaluation	1
Making better use of CINDI and CARMEN evaluation databases	1
No response	3

When asked about successful projects, two thirds of programmes reported on success in projects implementation. The successful, sustainable CINDI or CARMEN projects were reported as being well-structured and well-planned (Table 38). Involvement of the local population and/or nongovernmental organizations, good intersectoral collaboration, qualified technical support and training were other characteristics mentioned in relation to the success and sustainability of CINDI and CARMEN projects.

Table 38: ***Success of CINDI and CARMEN projects***
Question 10d (multiple responses)

Characteristics of success and sustainability of projects	Number of programmes
Structured and well-planned projects	7
Involvement of the population and/or local NGOs	4
Development of education programmes	3
Too early to tell	3
Inclusion of preventive intervention in the functions of health care centres	2
Long-term government support	2
Support to projects by international organizations (financing, logistics)	2
Good intersectoral collaboration	2
Qualified technical support and training	2
Good dissemination activities (proceedings of seminars, professional guidance)	2
Availability and investment of resources	2
Local health information system	1
No response	8

Over half of the programmes mentioned at least one approach that had facilitated the adoption of successful CINDI and CARMEN projects and practices by the health system (Table 39). The use of the media, marketing and advocating the projects to diverse audiences were the most frequently mentioned. The importance of linking projects and practices to national and regional health policies and priorities was also recognized, as well as the value of participatory approaches and consensus building.

Table 39: ***Approaches facilitating the adoption of CINDI and CARMEN projects and practice by the health system***
Question 10e (multiple responses)

Type of approach	Number of programmes
Use of media, marketing, advocacy to diverse audiences	7
Link to national or regional priorities and policies	4
Participatory approach or consensus building	3
Building on existing capacities and resources	3
Education of health professionals and the public	2
Regular monitoring of the health situation and prevention in primary care	2
Providing relevant information for management decisions	1
Scientific advisory role on risk factor interventions	1
No response	11

Health systems and NCD prevention

According to Table 40, the vast majority of participating countries reported on the existence of established NCD prevention programmes at the country level. An in-depth analysis demonstrated that NCD programmes addressed a very wide range of issues in the countries. These could be grouped in three categories: risk factor (e.g. tobacco) oriented programmes, disease (e.g. diabetes) oriented programmes, and programmes of a broader character addressing health policy issues. Almost every country with an NCD programme reported having more than one risk factor or disease oriented programme.

*Table 40: **Established NCD prevention programmes in CINDI and CARMEN countries***
Question 11a

NCD prevention programmes established at country level	Number of countries
Yes	24
No	5
No response	1

Countries reported that the responsibility for the implementation of NCD prevention programmes was mainly with the government – health sector (Table 41).

*Table 41: **Institutions or organizations responsible for implementation of NCD prevention programmes***
Question 11a (multiple responses)

Institutions or organizations	Number of countries
Government – health sector	14
NGOs	5
Government – non-health sector	4
Coalitions	3
National institutes	3
Research institute or Medical Academy	2
National CINDI Programme Office	1
Community boards	1
Specially established boards	1
No response	9

The majority of CINDI and CARMEN programmes reported the collaborative involvement of the public health services and primary health care in NCD prevention. As shown in Table 42 (Questions 11b and 11d), most of these collaborative activities focused on the development and dissemination of practice guidelines, training of health personnel, and delivery of interventions. From the responses, it appeared that the profile of public health services and primary health care activities overlapped in aspects relating to capacity building for and the delivery of NCD prevention.

Table 42: ***Support to NCD prevention through public health services and primary health care***
Questions 11b, 11d, 11f (multiple responses)

Type of support	Number of programmes
CINDI/CARMEN collaboration with public health services (Question 11b, part 3)	
Training and professional education of health professionals	8
General collaboration on health promotion projects	4
Generation of guidelines and coordination of their implementation	3
Promotion of NCD policy through public health services	3
Provision of expert and consultative services	2
Building monitoring systems	1
No role	2
No response	11
CINDI/CARMEN collaboration with primary health care (Question 11d)	
Training and professional education	10
Delivery of primary health care interventions for NCD prevention	7
Development and dissemination of practice guidelines	6
Advocating prevention for primary health care	4
Working on policies and strategies for NCD prevention	3
Working with multidisciplinary teams in programme implementation	1
No role	2
No response	6
Promoting links between public health services and primary health care (Question 11f, part 2)	
Networking and partnerships	5
Professional education	3
Involvement in policy development	2
No role	7
No response	13

The extent to which public health services are linked with primary health care varied to a high degree across the countries. An in-depth analysis demonstrated that among CINDI participating countries, countries of central and eastern Europe reported substantially weaker links than the countries in western Europe (Question 11f, part 1 – table not shown). In several countries of western Europe public health services and primary health care are completely merged.

The CINDI and CARMEN programmes recognized the importance of linking these two components and played a role in promoting links between public health services and primary health care. The methods used were networking and partnerships, professional education, involvement in policy development (Table 42, question 11f, part 2).

Table 43 shows that several factors facilitated the delivery of NCD prevention through public health services. The active support of the ministry of health was most frequently mentioned. Lack of funding and human resources was seen by many countries as the main hindrance to the delivery of NCD prevention through public health services. Other hindering factors mentioned were economic environment and structural reforms, non-prioritization of NCD prevention policy, lack of knowledge and skills.

Table 43: ***Delivering NCD prevention through public health services***
Question 11c (multiple responses)

Factors	Number of programmes
Facilitating factors	
Support of the ministry of health	9
Collaboration	3
NCD prevention programme or strategy	2
Sharing of knowledge	1
Professional education	1
No response	16
Hindering factors	
Lack of financing and/or human resources	14
No policy priority for NCD prevention	5
Economic environment and structural reforms	4
Lack of knowledge and skills	4
View that preventive activities are additional workload to general practitioners	2
Lack of capacity of public health services	1
Lack of models to deliver integrated interventions	1
Lack of guidelines	1
Difficulties in intersectoral collaboration	1
No response	8

The response to the question on facilitating factors in the delivery of NCD prevention through primary health care was very poor: only 9 countries responded. Table 44 indicates that incentives given to health providers and a well-developed primary health care system were the facilitating factors mentioned most often by countries that responded. The factors hindering the delivery of NCD prevention through primary health care (Table 44) were similar to those hindering the delivery of NCD prevention through public health services (Table 43).

Table 44: ***Delivering NCD prevention through primary health care***
Question 11e (multiple responses)

Factors	Number of programmes
Facilitating factors	
Incentives given to health providers	4
Well-developed primary health care system	2
Intersectoral collaboration	2
Professional education	2
Well-established NCD prevention	1
Population awareness of the importance of prevention	1
Availability of new technology	1
No response	21
Hindering factors	
Lack of financing and/or human resources	9
Economic environment and structural/health care reforms	3
Health system not supportive of preventive check-ups	4
No priority for NCD prevention policy	5
Lack of knowledge and skills	3
Lack of incentives given to health providers	1
Population not used to recognizing primary health care doctors as NCD prevention cornerstone	1
No response	11

Regarding the possible impact of health care reform on the programmes, 40% of them reported that they had benefited from it. However, 10% reported that health care reform had hindered programme development (Table 45). Positive effects were achieved where health care reform emphasized primary health care, set disease prevention targets and enlarged the scope of public health services to include NCD prevention where the principles of the health care reform were congruent to the CINDI or CARMEN approach.

Table 45: ***Impact of health care reform on CINDI or CARMEN programmes***
Question 11h (multiple responses)

Type of impact	Number of programmes
Positive impact	15
Emphasis on primary health care, public health services	3
Principles of health care reform congruent with CINDI and CARMEN approach	2
Enlargement of scope of public health services in NCD prevention	2
Increase in funding and international links	1
Greater freedom in formulating prevention policy	1
Acceptance of the integrated approach to NCD by the health system	1
Legislation	1
Negative impact	4
Abolishment of public health structures or reduction in funding	4
No impact	4
No response	10

Two thirds of the countries reported that health care reform had brought about new opportunities for the delivery of NCD prevention (Table 46). Most commonly mentioned was strengthening of NCD prevention at the primary health care level.

Table 46: ***Opportunities created by health care reform to deliver NCD prevention***
Question 11i (multiple responses)

Type of opportunity	Number of programmes
Enhancement and delivery of NCD prevention at primary health care level, e.g. creation of family medicine	8
Collaboration between health and non-health sectors; development of community-based and population approaches	3
New infrastructure for NCD prevention	3
Increase in resources, including funding	2
Positive attitudes to health protection	2
Freedom to formulate prevention policy and health legislation	1
Decentralization	1
New payment schemes for general practitioners and health education providers	1
No opportunities created	2
Not applicable, no health care reform	2
Do not know	1
No response	9

An issue of major importance in connection with policy implementation is the extent to which programmes have developed – or are in the process of developing – strategies to ensure the enhancement and dissemination of best practices and successful interventions at regional and

national levels (in other words, moving from demonstration to dissemination). Table 47 shows that this was the case in four countries and that nine countries were planning to develop such as strategy.

Table 47: ***Dissemination strategies in CINDI and CARMEN programmes***
Question 12a

Strategy status	Number of programmes
No strategy	15
Strategy in planning stage	9
Strategy exists	4
No response	2

Financial resources were reported as being the most important factor in the dissemination of the CINDI and CARMEN interventions (Table 48). This includes resources for general programme implementation and the specific earmarking of resources for dissemination. One quarter of the programmes regarded human resources as an important element of dissemination and emphasized the need for obtaining government and policy support, and developing relevant partnerships and networks.

Table 48: ***Capacity and resources needed to disseminate and deploy interventions***
Question 12b (multiple responses)

Type of capacity or resource	Number of programmes
Financial resources	15
Human resources	8
Link to government and NGOs at all levels and political support	6
Relevant partnerships or networks	4
Building on established capacities of the health system	4
Appropriate structures	4
Evaluation systems including collection of data on the cost of delivery of activities	3
Dissemination strategy	3
Time resources	2
Elaboration of evidence-based scaleable interventions	1
Favourable context for health promotion	1
No response	4

To move forward with the dissemination and deployment of successful interventions, programmes need to establish information systems that capture data on cost, organizational issues and best practices. Responses to Question 12c (table not shown) indicated that half of the programmes were aware of the importance of collecting such information. Most frequently mentioned was the need to collect data on delivery costs and best practices; less frequently mentioned was the need for collection of data on the organizational aspects of delivery.

Almost two thirds of the programmes reported taking advantage of new information technology for programme dissemination (Table 49).

Table 49: ***Use of new information technology for programme dissemination***
Question 12d

Use of new information technology	Number of programmes
Yes	19
No	9
No response	2

Among the information technologies used by programmes, Internet was reported as the most popular, followed by computerized patient information and interactive continuing education programmes (Table 50).

Table 50: ***Type of new information technology used for programme dissemination***[a]
Question 12d

Type of new information technology	Number of programmes
Internet (emails, web page, database)	17
Computerized patient information at primary health centres	1
Interactive education programme	1

[a]Only programmes which reported taking advantage of new technology included (N=19).

Weak infrastructure, lack of financial resources and lack of technical skills were reported as main barriers to the use of new information technology (Table 51).

Table 51: ***Barriers to the use of new information technology***
Question 12e (multiple responses)

Type of barriers	Number of programmes
Weak infrastructure (computer facilities, connection with the Internet)	11
Lack of financial resources	10
Lack of knowledge and skills	3
Human resources	2
No barriers	1
No response	6

Strategic issues for future programme development

Countries were asked to rank 13 listed issues according to their importance for future programme development (Table 52). Many countries gave all of the issues high priority. Population knowledge of and motivation for prevention, interest shown in prevention by the health system, resource mobilization and progression from demonstration phase to dissemination phase were identified by countries as the four strategic issues of highest priority. This confirms that countries consider issues that might provide long-term political support and resource infrastructure to be highly important for programme development. The second group of priorities related to systemic issues, such as working with primary health care and public health services and promoting links between them.

*Table 52: **Strategic issues for the future programme development***
Question 13a

Strategic issue	Number of programmes			
	High priority	*Medium priority*	*Low priority*	*No-response*
Population knowledge of and motivation for prevention	23	3	0	4
Interest shown in prevention by the health system	22	2	1	5
Resource mobilization	22	2	1	5
Role of primary health care in CINDI or CARMEN implementation	19	3	1	7
Opportunity for CINDI and CARMEN to link primary health care and public health services	18	1	3	8
Role of public health services in CINDI or CARMEN implementation	18	3	1	8
Appropriate utilization of information technology	16	6	2	6
Organization of CINDI and CARMEN monitoring and evaluation systems	16	6	0	8
Programme expansion from primary focus on cardiovascular disease to broader NCD agenda	16	7	1	6
Finding common ground for disease prevention and health promotion	15	6	3	6
Use of process evaluation in programme implementation	14	7	0	9
Progression from demonstration phase to dissemination phase	14	10	1	5
Positioning of CINDI or CARMEN vis-à-vis health determinants	12	8	3	7

A number of countries reported additional strategic issues for future programme development, including new types of training, dissemination, financial support, legislation, or research within special population groups (Table 53, Question 13b).

*Table 53: **Additional strategic issues***
Question 13b (multiple responses)

Additional strategic issues	Number of programmes
New types of training for public health specialists	2
More involvement in legislation and policy making	2
Community motivation and mobilization	2
New infrastructure for public health	1
Increased research related to CINDI and CARMEN	1
Increased priority for NCD prevention	1
Development of methodology to target special population groups	1
Establishing the programme executing agency as a nongovernmental organization	1
Cooperation with other sectors	1
None	1
No response	20

Strategic Implications

Both studies had strategic goals. Rapid political, social and economic changes in Europe and other parts of the world create both opportunities and challenges for the CINDI and CARMEN programmes. To meet the challenges, the programmes require positioning. Globalization, new information technologies and health care reforms are forces that have an impact on national health systems and their performance. These challenges demand a policy response. By documenting the impact of these forces, the present study should contribute to the development of informed policy response.

CINDI and CARMEN as countrywide programmes

The ultimate goal of the CINDI and CARMEN programmes is to become countrywide. In order to do so, the programmes should either be expanded to the national level or they should be contributing to comprehensive countrywide action. The study provided an opportunity to examine to what extent and in which sense this goal had been achieved. At the point of joining CINDI, more than 80% of all CINDI programmes were established and carrying out activities at the demonstration area level. Three of four CARMEN countries were initiated at both the national and the demonstration area levels. Between the two policy surveys, one quarter of the CINDI programmes expanded to new demonstration areas or to regional level. The fact that national government was reported as a source of funding by about three quarters of the programmes and that about two thirds of the programmes indicated that the national government was their main source of funding attests to the importance of the programmes for the countries.

It is significant in becoming countrywide that collaboration between the programmes and the national governments extends to national health policy. More than half of the programmes reported having contributed to a national health policy document and fourteen programmes reported having issued a policy document on NCD prevention. The study showed that the programmes were well positioned vis-à-vis national health care reform aimed at emphasizing primary health care and public health services. Fifty percent of the programmes reported that health care reform had helped their development by increasing opportunities for NCD prevention through primary health care, the creation of new infrastructure for prevention and increased resources. Adverse effects of health care reform – resulting mainly from reduction in resources – were reported by very few programmes.

Marketing efforts provide information on the extent to which programmes are striving to become countrywide in scope. As an intervention strategy, marketing was used mostly on an opportunistic basis to increase partnerships and financial support. Lack of resources, lack of organizational structures and lack of expertise were seen as the main barriers to marketing.

The range of marketing targets reported by programmes was wide and included mainly national health agencies, ministries of health and the private sector and government. The emphasis placed on marketing to the health sector may be explained by the fact that most CINDI programmes are based in health institutes and ministries of health.

Given that marketing is a potentially important tool in moving the CINDI and CARMEN programmes to the countrywide level, that it is an area where current activities tend to be opportunistic and that almost no increase in capacity was reported, it would be appropriate

to suggest that marketing activities need to be strengthened and targeted to a wider range of partners.

Dissemination and deployment are emerging as new strategies to bring CINDI and CARMEN programmes to the national level. The Kaunas framework of integrated approaches to NCD prevention, recommended by WHO in 1981 *(7)* and described in a published article that followed in 1983 *(8)*, laid out an agenda to test and evaluate community programmes at demonstration area level. Twenty years later, the result is that close to 80% of the CINDI and CARMEN programmes consider moving from demonstration to dissemination and deployment as a main strategic issue; 25% recognize dissemination as a criterion for the success of the programme implementation process. Moving from demonstration to dissemination requires, first and foremost, financial resources, trained human resources, policy and political support, as well as appropriate partnerships and capacity within the health system. While few programmes reported having a strategy for dissemination, half of the programmes recognized the need to collect information on factors that support dissemination, such as cost of programme delivery, best practices and organizational models.

The extent to which CINDI and CARMEN programmes can be considered countrywide might be determined by their actual involvement in national health agendas. The results of the study suggest that to achieve countrywide status programmes need to focus on developing the capacity, tools and methodology required for policy development, marketing and dissemination. Clearly, this would entail additional investment and establishing partnerships with disciplines to support these initiatives.

CINDI and CARMEN as integrated prevention programmes

Integration is one of the key principles of the CINDI and CARMEN approach to the prevention of NCD. It is based on evidence that a number of major NCD share several risk factors – and it is multifaceted. Firstly, it makes it possible to deal with several risk factors simultaneously through joint action within the health system. Secondly, it combines population risk reduction and individual risk reduction approaches by linking the preventive action taken by various components of the health system (health promotion, public health services, primary health care and clinical care). Thirdly, it calls for a comprehensive approach to combine several implementation strategies, including policy development, capacity building, partnership, marketing and dissemination, and information support at all levels. Fourthly, it calls for intersectoral action to implement health policies to address the major determinants of health that fall outside the remit of the health sector.

The results of this study shed light on the extent to which CINDI and CARMEN programmes practice integration. Programmes reported their target diseases to be major NCD that share major risk factors. With respect to joint action to deal with several risk factors, the study shows that more than three quarters of the countries prioritized action on three or more risk factors. The fact that programmes prioritized intervention in community settings such as workplaces, schools and the community itself shows that countries were setting up multiple intervention models to integrate action on several risk factors.

Tobacco, physical activity and dietary habits were the top three priorities for intervention. Programmes worked extensively in all three intervention areas. Tobacco control was mentioned by about every second country where programmes were significantly involved in the enactment of health legislation and administrative regulations.

Countries reported a high number of projects and intervention activities at both demonstration area and national level. Projects were aimed at various target population groups and addressed multiple risk factors. A number of countries reported collaborative community-based projects with the participation of the non-health sector. Several programmes reported projects aimed at health determinants or addressing health inequalities. The analysis showed that countries used health promotion, as well as primary and secondary prevention measures to implement population risk reduction and individual risk reduction approaches in a balanced way. The strategies most commonly used corresponded to areas in which the programmes reported having greater capacity, namely professional education, monitoring and evaluation, policy development, public education and mass media.

The vast majority of the participating countries reported having established national NCD prevention programmes, which addressed diseases and/or risk factors or broader health policy issues. The main responsibility of such programme implementation was with the health sector, the non-health sector of government non-health sector and various nongovernmental organizations.

Coordinating and linking action within primary health care and public health services are essential aspects of integration and a means of realizing important synergisms in the utilization of resources.

Over half of the programmes supported NCD prevention in primary health care, in particular in connection with the development of preventive practices and training and professional education. Approximately the same proportion reported involvement in NCD prevention within public health services. In many countries this role focused on the delivery and capacity-building aspects of NCD prevention.

CINDI and CARMEN programmes promoted integration through their work with public health services and primary health care. However, there was no appreciable involvement in functions pertaining to NCD prevention within the public health system (such as needs assessment, policy development, priority setting, advocacy and surveillance). In countries, where programmes supported the development of stronger links between primary health care and public health services, this included involvement in joint policy development, participation in networks and reaching out to different professional groups. The majority of the programmes recognized that exploring opportunities to strengthen these links in the future represent a strategic issue for future programme development.

As already mentioned, CINDI and CARMEN programmes reported using a wide range of intervention strategies that support integration. Professional education, monitoring and evaluation, policy development, marketing and organizational development, and dissemination were the strategies most commonly utilized. This was consistent with the fact that programme process criteria for the success of CINDI and CARMEN included: impact on policy; visibility and recognition of CINDI and CARMEN as an authority on NCD prevention; dissemination and institutionalization; and integration of activities into the health system. However, with respect to the last-mentioned, caution is in order. The study suggests that few programmes were making the effort to link their projects with national and regional priorities, which would increase the chances of these projects being integrated into policies of the health system.

The current readiness of the CINDI and CARMEN programmes to integrate NCD prevention with health promotion initiatives at the community level needs to be further examined.

Community associations, the media and the public were seen as marketing targets only by one country. On the other hand, public education, social marketing and community mobilization were identified by 50% of the countries as intervention strategies for which capacity requires strengthening. This is a challenge for the future that bears reflection in terms of opportunities and barriers.

Integration cannot be achieved without intersectoral action. It is of paramount importance to deal with the determinants of NCD *(13)*. Involving partners from other sectors in priority decision-making opens the opportunity for integrated action. Many CINDI and CARMEN programmes mentioned a wide range of partners, mainly from within the health sector. The programmes had a wide range of partnerships with international agencies (including WHO), and with each other. However, involvement of the non-health and private sectors was limited.

The main type of support provided by the CINDI and CARMEN country programmes to collaborative partners was general programme support, exchange of information, and capacity building.

The fact that the numbers of partners and resources had increased appreciably between 1994 and 1999 augurs well for the integrated approach. Most programmes wished to expand their partnerships with the health professionals' associations, research and academic organizations, the non-health sector (e.g. education, agriculture) and the private sector. In the health sector, countries wished to strengthen their partnership with primary health care, public health, and acute care. The reported range of partners and funding sources provided information on the potential for CINDI and CARMEN to implement an integrated approach to NCD prevention.

The financial, political and organizational support received from various levels of government was the benefit from partnership most often reported. Some countries reported support received in areas such as marketing, policy and human resources as the most important benefit.

CINDI and CARMEN contributed to preventive activities at various levels of government mainly providing policy and strategy frameworks, and programme development and implementation. Other areas mentioned although to a lesser extent, were the provision of information and materials and advice on prevention.

Resources

Resources, both financial and human were a major factor influencing the implementation of CINDI and CARMEN programmes. All programmes were active in resource mobilization although with varying degrees of success. Most programmes reported several sources of funding (national and local governments, WHO, institutes and non-governmental organizations). Governments were the main sources of support, supplemented by funding from private sources. Approximately every third country reported nongovernmental organizations as resource providers. The wide variety of funding sources may be an indication that programmes were responding to an increasing range of priorities that cut across major sectors of society. Another positive trend was the increase in resources between the first and the second studies, although there was little change in the sources of funding. This was consistent with the fact that CINDI and CARMEN countries focused their marketing activities on these sectors. Most countries indicated that resource mobilization was a high priority for future programme development.

It may be concluded that many CINDI and CARMEN programmes are striving to include the various dimensions of integration in NCD prevention. Specifically, the opportunities and the potential clearly exist for the programmes to increase the involvement of partners from both within and outside the health sector.

Processes of NCD policy development and strategic programme planning

In CINDI and CARMEN programme decision making, very many factors were considered by programmes in determining priorities for projects and activities. The most important factors were population health trends, availability of resources and health system capacity. Epidemiological and needs assessment information was widely used in decision-making. Project costs, feasibility and measurable outcome were mentioned as important issues. In several countries, existing possibilities for specific projects were also a determining factor for priority projects. International development and the availability of intervention technologies also influenced the choice of priority projects and activities.

With regard to strategic planning, partners involved in priority setting appeared mainly to be from the various levels of the health sector – municipal, regional, national. Consensus among partners and community involvement were the most important factors in several countries.

Greater capacity

Appropriate skills and capacities are required to match the aim of the CINDI and CARMEN programmes to become countrywide and to integrate action for the prevention of NCD. The study shows that countries increased their capacity in a number of intervention strategies. Professional education, monitoring and evaluation, public education, social marketing and community mobilization were most often mentioned. Capacity increased in the area of policy development where a good number of programmes reported contributing to the prevention activities at various levels of government. This is remarkable since these are precisely the kinds of capacity needed for the implementation of population approaches as well as for moving CINDI and CARMEN from demonstration to dissemination. The programmes reported the need to increase capacity in the areas of policy development and monitoring and evaluation and public education, social marketing and community mobilization. Professional education, for which capacity had increased in the majority of countries, was not frequently mentioned as a capacity area for future strengthening.

These findings were consistent with the type of intervention strategies most commonly used by programmes: professional education, monitoring and evaluation, and policy development.

With respect to dissemination, approximately one third of countries reported and increase in capacity for this intervention strategy; about the same proportion mentioned the need to enhance this. It should be noted, that dissemination only becomes an issue when programmes have reached the point of maturation. The fact that one third of the countries joined CINDI or CARMEN only two to five years before this study may mean that these programmes were in the process of completing the demonstration phase when issues of dissemination were not yet relevant to them. A cross-tabulation (not shown) supports this hypothesis; a positive association has been observed between the age of the programme and the priority given to moving from the demonstration phase to the dissemination phase. Also, moving from demonstration to dissemination was recognized by the majority of countries as a strategic issue of the highest priority for future programme development.

Evaluation

This study shows that most of the programmes routinely conducted a risk factor survey within a five-year interval, in accordance with the CINDI and CARMEN protocol and guidelines *(1,4)*. Process evaluation was recognized as a practical means of documenting the impact of interventions. The collaboration of a number of CINDI and CARMEN programmes in the preparation of the CINDI Handbook on Process Evaluation *(3)* and the use of the handbook by the programmes were positive developments in this area.

The emphasis placed by countries on evaluation supported an evidence-based approach. In half of the programmes, evaluation had had an impact on programme planning and delivery, priority-setting and funding. The importance of collecting data on programme delivery costs, best practices and organizational aspects was also recognized.

Evaluation results were mainly publicized through government documents and professional journals. Some countries mentioned the mass media, conferences or other types of meetings. These findings that evaluation results were mainly publicized to the professional audience are consistent with the fact that professional education was one of the most often used intervention strategies and that monitoring and evaluation was most often reported by countries as an intervention strategy with increased capacity. They also indicate that dissemination of evaluation results needs to be strengthened. It should be noted that knowledge of and motivation for prevention among the population was identified by countries more often than any other strategic issue as important for future programme development.

Networking and international collaboration

The analysis of collaboration among participating countries provided evidence that the CINDI and CARMEN networks created multiple unique opportunities to strengthen international collaboration. Three quarters of the programmes reported having international collaboration, which was expanding in the following three main directions: collaboration with other national programmes, participation in CINDI or CARMEN Working Groups, and participation in other WHO initiatives and projects related to health promotion and disease prevention. Half of the programmes reported collaboration with other (and rather often with several) national programmes. Many CINDI programmes were actively participating in a number of the CINDI working groups. High interest was shown in the Quit and Win smoking cessation campaign, coordinated by the CINDI Working Group on Smoking. CARMEN programmes were also represented in CINDI working groups, such as the Working Group on Policy Development. CINDI was represented in the CARMEN Working Group on Physical Activity. There were 12 relevant WHO programmes or projects in which CINDI and CARMEN programmes participated, most of them activities of the WHO Regional Office for Europe.

Exchange of information, access to knowledge, expertise and experience, support to policy development , the opportunity to participate in research activities and increased programme visibility and credibility were mentioned as benefits of international collaboration within and between CINDI and CARMEN networks and between the programmes and WHO.

Value added

The study shows that the unique value of the CINDI and CARMEN programmes to the countries in which they operate can be divided into three categories: benefits that countries expect to derive from participation in these networks; benefits derived through the accomplishments of the programmes; and the potential benefits of participating in the future development of these networks.

International collaboration, with resulting access to knowledge, methodology and expertise, as well as increased visibility and political support at the national level, was reported as the main benefit of participation in the CINDI and CARMEN programme networks. This is consistent with the fact that almost all programmes reported having international partners and that half of the programmes participated in one or more of the CINDI and CARMEN working groups. The Quit and Win smoking cessation campaign figured prominently as a project in which a growing number of programmes participated. WHO contributed funding to many of the programmes, particularly those in central and eastern Europe and in Latin America. Also, many programmes reported having bilateral or multilateral collaboration with other national programmes.

CINDI and CARMEN country programmes collaboration on monitoring and evaluation provided programmes with standardized and validated methodology. Unique international quantitative and qualitative databases were established.

As main accomplishments, the programmes reported the adoption of the integrated approach to NCD prevention and the programme model, increased awareness among health professionals, decision-makers and the population of the potential of the integrated approach to NCD prevention. The reported increase in capacity for monitoring and evaluation, professional education, public education and community mobilization, should be also seen as programme accomplishments. Of equal importance was the opportunity to influence policy and legislation. Policy development was an area in which CINDI and CARMEN programmes had increased their capacity in the period between the two studies, a fact that has added value by virtue of the possibility open to these programmes to contribute to national NCD policy documents.

The most cited criteria for the success of the programmes were the reduction of the prevalence of risk factors and the reduction of premature death caused by NCD. In fact, several countries reported improvement in risk factor trends. In addition to the above outcome criteria, programmes provided a wide range of process evaluation criteria. These can be used as a basis to develop a core set of common indicators.

Countries also reported success in project implementation. Successful projects were defined most often as being structured and well-planned. Preventive activities as an indicator of the performance of health centres and the involvement of the community and local nongovernmental organizations were also cited as criteria for success.

The knowledge of the population about and motivation for prevention, the interest in prevention shown by the health system, resource mobilization and progression from the demonstration phase to dissemination phase were identified by countries as four strategic issues of the highest priority. This confirms that countries attach high priority to issues that might provide long-term political support and resource infrastructure. The second group of priorities relates to systemic issues, such as working with primary health care and public health services and promoting links between them.

Looking to the future, CINDI and CARMEN programmes could support NCD prevention within their national health systems by providing leadership and methodology in the transition from demonstration to dissemination and deployment of interventions. In this way, the CINDI and CARMEN networks could play an effective role in linking the various components of the health system by transferring their capacity to health promotion and disease prevention initiatives locally and globally. To deliver the "preventive dose" necessary to make an impact on the health outcome of the population, intervention activities need to be increased. Appropriate investment would be required, as well as international collaboration, to develop the required capacity. The CINDI and CARMEN programmes are ready to contribute.

As WHO networks, CINDI and CARMEN add value by providing access to scientific expertise in the field of NCD prevention and control and thus to the delivery of policy and programme in this area. These programmes can be used as a platform for policy research and information about best practices and as a repository of scientific evidence on interventions that work.

Conclusions

The road from Kaunas

The CINDI and CARMEN programmes are the outcome of a process that started on an international scale with the preparation of the report on the WHO meeting held in Kaunas in 1981 *(7)*. This report was ahead of its time. The initiative described pioneered seminal ideas of integration, including the integration of NCD activities with primary health care, the importance of multisectoral action, the application of practical health promotion to the prevention of NCD in entire populations, and the evaluation of interventions through process and outcome indicators. The report provided precise guidelines on the type of data that should be collected, including the cost–effectiveness of programme development and delivery. Over a twenty-year period, two WHO Regional Offices (for Europe and for the Americas) have developed an extensive network of country programmes based on the theoretical framework for organizing an effective intervention programme, formulated at the Kaunas meeting.

A score-card

It is tempting to regard the ideas and principles from the Kaunas meeting *(7)* as a backdrop that, when combined with the results of this study, can produce a score-card twenty years later. Such a score-card would be, for the most part, a positive one. Thirty CINDI and CARMEN country programmes existed at the time of this study and all programmes participated in it. Seven new countries have joined the networks since the study took place. All of these programmes value the concept of integration and strive to put it into practice using modern principles of health promotion, including multisectoral action. They are engaged in primary health care activities and have built considerable capacity in professional education and monitoring and evaluation (though there is scope to increase the use of data in monitoring policy and programme development). Demonstration appears to have taken hold in the CINDI and CARMEN programmes as an effective strategy for translating policy into practice. These developments occurred in all geographical areas during an unprecedented period of political, social and economic upheaval. This suggests that the philosophy for NCD prevention that originated in Kaunas is sound; it also speaks for the quality of the human resources responsible for the organization of the programmes at different levels. It would be hard to argue that the CINDI and CARMEN programmes have not been good investments for WHO. However, the score-card should not invite complacency.

Moving towards the population approach

The study has documented a number of points for reflection. One of the most important is that a good number of CINDI and CARMEN programmes have been putting population strategies into practice and attempting to balance them with efforts targeted to high-risk groups. To strengthen this, the following is required: a supportive health promotion framework at the national level; close collaboration with the ministry of health; a balance between the numbers of partners from the health sector and those from the non-health and private sectors, reinforced by continued marketing to the health sector; and increased marketing of the programmes outside the health sector.

Programmes expressed the need to improve capacity in community mobilization, public education and social marketing as intervention strategies. There is an increased awareness of the value of policy development and a desire to enhance capacity in this area. International collaboration

is highly valued as a means of accessing expertise in health promotion and of learning how to mobilize resources from sectors other than the health system. All these factors enable population approaches to NCD prevention.

Marketing remains a challenge

Marketing of the value of prevention to the population at large and marketing of the CINDI and CARMEN programmes are essential if we are to build a solid political and policy base and to establish the programmes as significant players in the health systems of their countries. Marketing provides the opportunity to expand partnerships, mobilize resources, strengthen the population approach (including public education) and makes the CINDI and CARMEN programmes countrywide in scope. The programmes have important assets to market: the integrated NCD prevention model; the technical capacity to carry out epidemiological and health systems research; the capacity for professional education; and the potential, through health system reforms, to extend activities within the new public health services, e.g., incorporating health promotion approaches into the traditional public health services that used to deal mainly with communicable diseases. Yet, progress has been inconsistent, for the most part opportunistic and not strategically targeted. The barriers to marketing in a strategic sense should not be difficult to overcome and strategies to improve marketing should be explored. It is recommended that capacity building in marketing be given priority.

The "C" in CINDI

Two major challenges for CINDI and CARMEN in the future are to make the programmes more countrywide and to move from demonstration, as the mainstay of intervention, to dissemination. Clearly these challenges are related.

Readers of this report, still holding as a backdrop for our score-card the principles of the intergrated NCD prevention and control programme formulated at the Kaunas meeting *(7)*, should be aware that, at the meeting, neither of the two concepts, "countrywide" and "dissemination", were discussed. It would have been unusual to address issues of dissemination at that time. Twenty years ago, the time was ripe to concentrate efforts on proving the effectiveness of community interventions and on building local capacity through demonstration projects. Undoubtedly, the demonstration strategy has served the programmes well.

While lending political attractiveness to the programme, the "C" (countrywide) in CINDI poses a great challenge. As this study progressed, two points became increasingly clear. Firstly, most countries were operating at the demonstration area level when they started. Secondly, being countrywide might be regarded more appropriately as a continuous variable (with countries at various stages of this continuum) than as a dichotomous variable. The study shows that most of the CINDI and CARMEN programmes were moving towards expanding collaborative activities with national organizations, establishing partnerships at the national and international levels, and becoming involved in national processes of policy development, which will eventually render them more countrywide in scope.

The "C" in CINDI is prominent. It would be appropriate for all CINDI and CARMEN programmes, as well as for WHO, to reflect on the barriers (political, policy, capacity, managerial, governance) that programmes face in becoming progressively countrywide. It would be worthwhile to develop an index of how to measure the extent to which programmes are countrywide.

Becoming countrywide at different rates

CINDI and CARMEN programmes are moving at different speeds towards the countrywide goal. This is to be expected since the programmes are at different stages of development. Operating at the demonstration area level may be appropriate for countries that joined CINDI and CARMEN in recent years and are trying to develop capacity in monitoring and evaluation, to establish sustainable management structures and financing arrangements, and to build a basic network of partnerships. Another consideration is that the concept of demonstration may differ from country to country and that the programme started at different points in time in the countries.

Second-generation demonstration programmes

Demonstrations programmes, such as the Stanford Five-City project *(20)* and the North Karelia project (CINDI-Finland) *(13)*, set out to illustrate the feasibility of effective intervention to prevent cardiovascular disease and NCD at the community level. A second generation of programmes, CINDI-Canada being one of them, used demonstration areas to develop implementation capacity and to adapt disease prevention and health promotion methods that had been proven effective elsewhere. In spite of the difficulty of characterizing programmes as being in the demonstration mode or not, there is still concern that, for a variety of reasons, not all programmes are exploiting their potential to become national in scope.

Dissemination research or lack of it

Another place to start would be in discovering practical ways to disseminate capacity and the interventions that CINDI and CARMEN programmes have found effective. In contrast to demonstration, relatively little research and few resources have been devoted to studying the processes of dissemination. The First Dissemination Research Conference, held in Vancouver in 1995, defined research on dissemination as the process of identifying and acting upon variables that facilitate or hinder the uptake of capacity and interventions by jurisdictions, organizations and communities *(12, 21)*. The CINDI and CARMEN programmes are well positioned to document processes of dissemination and to develop databases of case studies and experience in this area. It should be emphasized that, in contrast to demonstration, dissemination requires increased political support. To be practical, dissemination processes need to occur through the increased utilization of existing public health and primary health care infrastructures and through intersectoral collaboration within and outside government.

The increased involvement of the CINDI and CARMEN programmes in policy development affords the opportunity to sell the idea of dissemination to government at policy level, including the need for NCD prevention programmes to deliver the preventive dose (doing the right thing, to the right number of people, with the right duration and intensity of interventions) *(22)*. The CINDI and CARMEN programmes can build a platform to make dissemination possible, contribute to the science of NCD prevention and, possibly, speed up progress to full-scale implementation.

Research observatories

CINDI and CARMEN are powerful networks and constitute real observatories for research in health systems policy; they are reservoirs of information on the successes and failures of implementation. This research capacity has yet to be systematically exploited. A CINDI/CARMEN observatory may be the precursor of a global observatory for policy development and implementation in NCD prevention.

Networks and linking agents

Besides implementing activities in NCD prevention, CINDI and CARMEN are unique international networks whose members share common goals, resources and approaches. They are already fostering mutual support and collaboration. This is true not only of the WHO Regional Offices but also of the participating countries in the WHO Regions for Europe and the Americas (e.g. sharing protocols, site visits, participation in CINDI/CARMEN Working Groups). The coordinating, political and policy support that the WHO Regional Offices provide to CINDI and CARMEN programmes is essential to their governance and to their capacity to carry out practical prevention work.

The functionalities of CINDI and CARMEN as networks have yet to be fully tapped. These programmes are poised to play a key role in global health agendas; in promoting good practices and evidence-based policy development, in securing priority for health promotion and disease prevention within the legislative frameworks of health care reform; in finding common ground for health promotion and disease prevention in major global and local initiatives, and in contributing capacity and insight in areas such as monitoring, evaluation, professional education and dissemination. For example, by virtue of the fact that CINDI and CARMEN are involved in both public health (population) and clinical (high risk) interventions, these programmes can contribute to the debate on how health systems can best utilize health resources available. They can help to reduce the existing disproportion between the allocations for health promotion and disease prevention and those for curative care *(23)*.

The CINDI and CARMEN networks can play an effective role in dissemination by linking with other initiatives and networks and by sharing experience accrued over the years on the implementation of interventions through the health systems (public health services, primary health care). Cases in point are the WHO Mega Country Health Promotion Network *(24)*, WHO initiatives in NCD community programmes, and innovative health promotion community initiatives that have been proposed for implementation on a global scale *(25)*. There are compelling reasons for the CINDI and CARMEN networks to engage in other networks and initiatives. By enriching the capacity of others, CINDI and CARMEN programmes can enrich their own capacity.

Good reason for optimism

Taken as a whole, our score-card for CINDI and CARMEN gives rise to optimism. The fact that in carrying out this study two WHO Regional Offices pooled implementation experience augurs well for future international collaboration. This is a strategy in which WHO and other social and economic development agencies, such as the World Bank, could and should play a central role by facilitating the transfer of new NCD prevention and control technology across countries, indeed on a global scale. All CINDI and CARMEN programmes have the capacity to exercise leadership, introduce innovation and serve as linking agents among organizations that share similar goals in health promotion and disease prevention.

Dissemination – one step at a time

If there is one single key conclusion to be taken from the study, it is that dissemination should be seen as a new phase for CINDI and CARMEN. This would be the key to innovating these programmes and rendering them highly relevant to health systems, many of which are in transition and seeking answers on how to improve the health of their populations with respect to NCD within a generation span. And the environment is right. The international meeting to celebrate 20 years after Alma Ata *(26)* reflects the general conviction that all segments of society need to be involved in the promotion of health and the prevention of disease. A gradual, step-by-step approach is necessary to tackle dissemination. Political and policy support, building partnerships, developing information databases and resource mobilization will be key issues in this process. Strengthened international collaboration and the optimal use of information technology might be important facilitators in taking the first steps towards dissemination. Increasing capacity in resource mobilization, partnership and marketing will be prerequisites for success.

At the same time, CINDI and CARMEN programmes should continue to keep the score. For, in the words of Machado, a 20th Century Spanish poet: "There is no road ahead of us, we must make our own road".

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ANNEX 1.
QUESTIONNAIRE

SECOND COMPARATIVE ANALYSIS OF POLICY DEVELOPMENT AND IMPLEMENTATION PROCESSES *in the* COUNTRYWIDE INTEGRATED NONCOMMUNICABLE DISEASE INTERVENTION (CINDI) PROGRAMME

CINDI

WHO Collaborating Centre
for Policy Development
in the
Prevention of Noncommunicable Disease
Health Canada

To CINDI Programme Directors:

The Countrywide Integrated Noncommunicable Disease Intervention (CINDI) programme provides member countries with a policy framework and methodology for applying existing prevention knowledge. Collectively, the CINDI country programmes represent a wealth of experience on the application of a wide range of health promotion and disease prevention interventions under different social and health system conditions.

This 2nd Study on Comparative Analysis of Policy Development and Implementation Processes in CINDI has been developed by the CINDI Working Group on Policy Development. The questionnaire retains the basic structure and information items of the first Study conducted in 1994. Some additions and modifications have been made in most sections, in particular those pertaining to health systems, strategic issues and dissemination and deployment.

The purposes of the Study are to: a) document the pre-exiting conditions and the processes that led to the establishment of CINDI programmes at the country and/or demonstration area levels; (b) identify factors which help or hinder the development and the implementation of CINDI; (c) determine the current policy context and relevant changes since the first Study was conducted in 1994; (d) establish the programme, resources, and environmental aspects that mediate the successful dissemination of preventive interventions; and (e) explore how the international collaboration among CINDI member countries and the World Health Organization is contributing to the achievement of the Health 21 in the WHO European Region.

It is intended that the Study should: (i) promote informed discussions and sharing of experiences; (ii) increase the capacity of CINDI to carry out policy research in health promotion and disease prevention; and (iii) help track and monitor processes of policy development over time.

The completion of the questionnaire by CINDI Directors is the first phase of information gathering. This will be followed, as needed, by telephone interviews with CINDI Directors to clarify issues and refine responses to the questionnaire. It is proposed that the report of the Study be authored by the CINDI Directors participating in the Study. An editorial group will undertake to analyze the information gathered and, prepare a draft report for review prior to its completion and release.

GENERAL INFORMATION

- Those participating in the Study are encouraged to answer the questions in a free style and to focus on those questions and parts of the questionnaire most relevant to the CINDI programme.
- The questionnaire may be answered from the perspective of the CINDI country level.
- Questions already answered in the 1994 Study and which do not require update, may be skipped.

2. ORIGINS

a. In what year did CINDI start? What event or opportunity was the trigger for the establishment of CINDI?

b. Which institutions or individuals were primarily involved in negotiating with WHO for the establishment of CINDI?

c. Initially, what were the major activities/interventions/projects of the CINDI programme?

d. Were there any favourable circumstances, conditions, which facilitated the establishment of CINDI?

e. Initially, was there an existing national health policy framework that helped the establishment of CINDI? If yes, what was the focus of the policy? Did it address NCD prevention?

f. What challenges, obstacles had to be overcome to establish CINDI?

g. Initially, at what level was CINDI organized (country or demonstration area level or both)?

h. What were the expected benefits from joining CINDI?

i. Have there been any important health policy changes affecting CINDI since 1994?

3. ORGANIZATION AND RESOURCES

a. In which institutions/organization(s) is CINDI based?

b. List the demonstration areas where CINDI is organized, the year when they were established and the institutions/organizations where they are based?

c. Describe the management structure of CINDI, provide organizational charts and a list of key committees, if convenient.

d. Have there been any important organizational changes in CINDI since 1994? Describe.

e. Explain the organizational/working relationship between CINDI at the national level and the demonstration level.

f. Indicate the main sources of funding (financial, in-kind) from government, private sector, NGOs. Estimate the relative contribution from each sector.

g. Since 1994, has there been a steady increase or decrease of resources available to CINDI? If yes, from which sources(s) of funding?

h. In which functions does CINDI have greater capacity? (e.g.: policy development, professional education, social marketing, monitoring, evaluation and dissemination).

i. For which functions is it most necessary to strengthen the capacity?

4. PARTNERSHIPS

a. What institutions/organizations collaborate on an ongoing basis with CINDI? Provide list of partners.

b. For each of the major partners:

– what is the type of support or collaboration that they provide to CINDI (technical/financial/in-kind/political)?

– is there collaboration on an ongoing basis or is the collaboration a one-time only and project-specific?

c. What type of support does CINDI provide to the various partners? How does CINDI contribute to their agendas?

d. Are there any potential institutions/organizations which CINDI would like to have as partners but are not yet involved?

e. How does CINDI contribute to prevention activities of various levels of government?

f. What support does CINDI obtain from various levels of government?

g. For the last five years (1994–1998):

– has there been a steady trend in the number and type of partners?

– has there been a steady growth or decline in the contributions of partners to the CINDI programme?

– what factors are responsible for the change?

5. SCOPE: CURRENT AREAS OF EMPHASIS, MAIN PROJECTS

a. What are the CINDI priorities with respect to:

– types of NCD (e.g.: CVD, various types of cancer)

– risk factors (e.g.: smoking, obesity)

– target groups (e.g.: children, women)

– setting (e.g.: schools, worksites)

b. Has CINDI had a significant involvement in the passing of health legislation or administrative regulations? Explain and provide examples.

c. What are the main projects or activities of CINDI at the (a) country and (b) demonstration area levels? Indicate whether the various projects target individuals at high risk (e.g. hypertensive) or whether they are offered to specific population groups (e.g.: children) or to the population at large.

d. Describe the main strategies used in the CINDI projects and activities (e.g. policy development, professional education, screening).

6. PROCESSES OF POLICY DEVELOPMENT AND STRATEGIC PLANNING

a. Has the Ministry of Health issued a health policy document relevant to NCD prevention? If yes, indicate how is the document relevant to NCD prevention. Was CINDI involved in the development of the policy document? In what way?

b. What process is used in CINDI to determine priorities for project and activities? Which organizations are involved in making priority decisions? What criteria are used to set priorities?

c. Has CINDI prepared its own policy document on NCD prevention? Indicate which process was used to assess priority issues, strategic options, opportunities and barriers for prevention? Indicate the major stakeholders that have been involved in the preparation of the policy document.

d. If applicable, provide a list of institutions/organizations that have adopted the CINDI policy document on NCD prevention and indicate how they are using it.

e. To what extent are epidemiological and needs assessment information used, in actual practice, to make programme decisions?

f. With reference to the following international WHO CINDI policy documents: Protocol and Guidelines (1996) Bridging the Health Gap in Europe (1995), Positioning CINDI to Meet the Challenges (1992), are there any aspects of these documents which might require updating? Indicate any emerging topics or issues which should be examined from a policy perspective.

7. MARKETING AND RESOURCE MOBILIZATION OF THE CINDI PROGRAMME

a. Is there a systematic organized effort to market CINDI? What are the objectives of marketing? (e.g., to obtain political and material support). Describe.

b. Are marketing activities part of the strategic plan for CINDI or is marketing mostly undertaken on an opportunistic basis?

c. To which institutions/organizations are marketing efforts addressed?

d. Describe instances where marketing of CINDI was successful. Indicate the key factors for successful marketing.

e. Are there any barriers to the marketing of CINDI? Have there been any drawbacks or problems from existing activities to market CINDI? Is there a marketing strategy to overcome these problems and barriers? Describe.

f. What have been the benefits of marketing CINDI? Indicate how the marketing of CINDI may have led to increased material or political support, or to new alliances and partnerships?

g. Which relationships has CINDI established with the private sector, intergovernmental organizations and multi-lateral financial institutions?

h. What approaches does CINDI use to mobilize resources for (a) specific projects; (b) the basic programme infrastructure

8. INTERACTION WITH WHO INITIATIVES AND OTHER CINDI PROGRAMMES

a. Is CINDI currently collaborating with CINDI programmes in other countries? List the projects and indicate the type and extent of collaboration.

b. List the international CINDI Working Groups in which your country is participating. What is your CINDI's contribution to the various working groups?

c. Is CINDI currently participating in WHO programmes or initiatives? Indicate the type and extent of collaboration.

d. What are the benefits of international collaboration with other CINDI programmes, CINDI Working Groups or WHO initiatives?

e. From past experience, what were the key factors that led to a successful collaboration? What were the barriers?

9. EVALUATION

a. When was the last time (year) in which CINDI carried out (a) risk factor survey; (b) completed the Process Evaluation Questionnaire?

b. Have you begun to use the CINDI Handbook on Process Evaluation? Provide examples of applications.

c. Describe how the findings of the evaluation have been used and publicized.

d. Have the findings had an impact on the planning and delivery of the CINDI programme?

e. What was the role of the CINDI partners in the design and implementation of the evaluation?

10. SUCCESS / SUSTAINABILITY

a. What criteria would be appropriate to determine the success of CINDI?

b. What have been the key accomplishments of CINDI?

c. What are the key challenges ahead?

d. Provide a list of successful CINDI projects. What are the characteristics of these projects that may have contributed to their success?

e. What is done to have successful CINDI projects and practices adopted by the health system?

11. HEALTH SYSTEMS

a. Are there established programmes for NCD prevention at the country level? List the key programmes. What institutions/organizations are responsible for implementing the programmes (e.g. ministries, coalitions, NGOs)?

b. Are public health services involved in NCD prevention and control activities? Which institutions/organizations are responsible for these activities? How does CINDI support these programmes?

c. What factors facilitate or hinder the delivery of NCD prevention through public health services?

d. Does CINDI have activities that support NCD prevention through primary health care? Explain.

e. What factors and circumstances facilitate or hinder the delivery of NCD prevention through primary health care?

f. To what extent are public health services linked with primary health care in your country? Does CINDI play a role in enhancing the linkage?

g. List any primary care or public health service practice guidelines produced by CINDI.

h. Has health care reform helped or hindered CINDI? In what way?

i. What new opportunities does health care reform provide to deliver NCD prevention?

12. DISSEMINATION AND DEPLOYMENT

a. Does CINDI have a strategy to systematically move from demonstration to dissemination and wide scale deployment of successful interventions and capacities? Describe.

b. What capacities and resources are needed to disseminate and deploy CINDI interventions?

c. Is CINDI concerned with (a) gathering information on the cost of delivery of preventive interventions; (b) adequacy of organizational arrangements to deliver interventions; (c) identification, assessment and dissemination of best practices of NCD prevention? Explain.

d. Is CINDI taking advantage of new information technology (e.g.: Internet) to disseminate the programme? Provide examples.

e. What are the barriers to the use of new information technology?

13. STRATEGIC ISSUES FOR CINDI IN THE YEAR 2000+

a. Rate the following strategic issues or concerns facing CINDI in the future (by importance: Low-Medium-High). Comment on any of them, if appropriate.
__Interest in prevention by the health care system
__Population knowledge of and motivation for prevention
__Going forward from demonstration to dissemination
__Position CINDI vis-à-vis determinants of health
__Expand CINDI from a primary focus on cardiovascular disease to a broader noncommunicable disease agenda
__Opportunity for CINDI to link primary health care and public health
__Role of primary health care in CINDI implementation
__Role of public health services in CINDI implementation
__Appropriate utilization of information technology
__Use of process evaluation in CINDI
__Organization of CINDI monitoring and evaluation systems
__Finding common ground between disease prevention and health promotion
__Resource mobilization

b. List any other strategic issues which are important to the CINDI programme in your country.

14. REFERENCES

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World Health Organization. Health 21 – The Health For All Policy for the WHO European Region – 21 Targets for the 21st Century. World Health Organization, Regional Office for Europe, Copenhagen (1998).

15. NOTES

Provide the name, address, fax and telephone number of the CINDI Programme Director answering the questionnaire and of any other persons(s) who may be contacted to ollow-up.

Indicate whether you would like to be contacted by telephone to supplement verbally the written information provided in response to the questionnaire.

Return your answers by mail, fax or e-mail.

ANNEX 2.
CINDI AND CARMEN
COUNTRY PROGRAMMES
THAT PARTICIPATED IN THE STUDY

CINDI-Austria
CINDI-Belarus
CINDI-Bulgaria
CINDI/CARMEN-Canada
CARMEN-Chile
CINDI-Croatia
CARMEN-Cuba
CINDI-Cyprus
CINDI-Czech Republic
CINDI-Estonia
CINDI-Finland
CINDI-Germany
CINDI-Hungary
CINDI-Italy
CINDI-Kazakhstan
CINDI-Kyrgyzstan
CINDI-Latvia
CINDI-Lithuania
CINDI-Malta
CINDI-Poland
CINDI-Portugal
CARMEN-Puerto Rico
CINDI-Romania
CINDI-Russian Federation
CINDI-Slovakia
CINDI-Slovenia
CINDI-Spain (Catalonia)
CINDI-Turkmenistan
CINDI-Ukraine
CINDI-United Kingdom (Northern Ireland)

ANNEX 3.

EXAMPLE OF MAPPING COUNTRIES RESPONSES

Mapping the responses of every participating country is the first step towards deriving a taxonomy of categories for analysis. In order to illustrate this process the part of the database with regard to questions 11b, 11d and 11f is presented.

Health systems – Questions 11b, 11d, 11f.

Country numbers	Response to the questions on CINDI or CARMEN country programme support to NCD prevention through public health services *(Question 11b, part 3)*	Response to the question on CINDI or CARMEN country programme support to NCD prevention through primary health care *(Question 11d)*	Response to the question on CINDI or CARMEN country programme role in enhancing the linkage between public health services and primary health care *(Question 11f, part 2)*
#1	No response	Has primary health care demonstration projects in health centre.	No response
#2	No response	Too soon to tell	No response
#3	Professional education	Dissemination of guidelines; continuing education in health promotion; Proposal for methods of cancer prevention	No response
#4	Promotion of heart health policy and financing implementation research in the public health services	Importance recognized – no formal involvement	Promotion of links through policy and creation of partnerships
#5	Professional training related to public health services	Training of health professionals	No response
#6	Provision of expertise Training of health professionals	Too soon to tell	No response
#7	No response	No response	No response
#8	Capacity building	Implementation of national programmes and preventive guidelines	No response
#9	No response	No role	No role
#10	Closely involved; provision of guidelines	Primary health care services distribution vehicle for CINDI	Not applicable because primary health care and public health services are same system
#11	Provision of expertise and consultative services	Promotion, implementation of preventive guidelines	General enhancing role
#12	No role	No response	No response
#13	Provision of guidelines and materials	Promotion of CINDI policy and strategy; dissemination of practice guidelines and materials	Involve public health services through epidemiology network, policy development; involve health centres through accountability for policy and outcome
#14	General collaboration	Training, health promotion guidelines, hypertension ; Quit and Win smoking cessation campaign	No role

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