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## **Agenda Item 3.5**

**RESEARCH PRIORITIES IN  
NONCOMMUNICABLE DISEASES**



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# RESEARCH PRIORITIES IN NONCOMMUNICABLE DISEASES

## 1. Introduction

Noncommunicable diseases (NCDs) such as cardiovascular diseases, diabetes, cancers and chronic respiratory diseases constitute a major public health challenge in the South-East Asia (SEA) Region of WHO. Member countries in the Region are experiencing an accelerated epidemiological transition with rapid increases in health and economic burden imposed by these diseases.

NCDs account for 44% of the Region's disease burden. Eight million deaths (54% of all deaths) in SEA Region for 2005 were NCD-related. NCDs are increasingly becoming common among the poor and marginalized population groups.

The dominant feature of the epidemics of NCDs in the countries of SEA Region is that young and middle-aged adults are increasingly being affected. People in countries of the Region tend to contract disease at younger ages, suffer longer and die sooner than people of high-income countries. Middle-aged adults (35-60 years) in SEA Region show disproportionately high death rates due to NCDs in comparison with those living in more developed countries. This premature morbidity and mortality in the most productive phase of life is posing a serious challenge to societies and to their economies.

Today major causes for most of NCDs have been identified and the NCDs became largely preventable. The current threat of NCDs can be effectively addressed with available interventions. It is estimated that up to 80% of premature deaths from cardiovascular diseases and diabetes and over 40% from cancer can be averted if comprehensive public health response to NCDs that integrates multisectoral strategies of health promotion, disease prevention and cost-effective management is applied.

Though much is already known about NCDs, their risk factors, and determinants and on efficient interventions to prevent and control them, there are still wide areas of persisting information gap, that need to be identified and addressed.

## **2. Research on noncommunicable diseases**

In terms of research of NCDs, efforts contributing to practical application of existing evidence should be given the top priority of national governments, research community and funding agencies. Translational research that verifies the findings generated in high-income settings would allow better application of existing global evidence in addressing the NCD research agenda. The following aspects were given high consideration in prioritizing regional NCD research agenda:

- Importance of research in identifying national and regional NCD priorities;
- Contribution to development and implementation of national and regional policies, strategies, plans and programmes for integrated prevention and control of NCDs;
- Importance in addressing health inequities;
- Fostering collaboration; and
- Application of multidimensional, intersectoral and multidisciplinary perspective.

This paper proposes major areas of behavioural, epidemiological, economic, and health-system research that will contribute to the better use of existing knowledge and to effective operationalization of current commitments. Thus the focus is on the most important areas where research inputs are required for NCD programme development, implementation, monitoring and evaluation.

## **3. Domain of research in noncommunicable diseases**

The suggested research priorities are arranged into six categories according to the major components of the Regional Framework for Prevention and Control of NCDs i.e.:

Epidemiological assessment;

Awareness generation and advocacy;

Policy and programme development;

Capacity strengthening, resource mobilization and infrastructure development;  
Multisectoral and multilevel action; and  
Health sector intervention.

They are listed in the context of challenges as mentioned in the Regional Framework.

### **3.1 *Epidemiological assessment***

The research priorities are:

- To study the mortality and morbidity of major NCDs and their risk factors at national and regional level;
- To develop and assess norms, standards and tools for sustainable collection of core information on NCDs, their risk factors and determinants;
- To enhance multisectoral, multidisciplinary collaboration in building capacity for conducting epidemiological assessment of NCDs and setting up surveillance systems for NCDs;
- To establish community laboratories to test various NCD surveillance approaches;
- To generate information about the socioeconomic consequences of NCDs; and
- To assess the impact of poverty and other socioeconomic factors (including market forces) on NCDs.

### **3.2 *Awareness generation and high level advocacy***

The research priorities are:

- To compare effectiveness and efficiency of various NCD awareness generation, advocacy approaches and techniques;

- To ascertain the status of awareness on NCDs among people and policy makers;
- To evaluate strategies used in empowering communities for prevention and control of NCDs; and
- To study how to encourage governments to assume leadership and generate effective partnerships for NCD prevention and control.

### **3.3 *Policy and programme development***

The research priorities are:

- To study the effectiveness and efficiency of various interventions (regulatory, fiscal, etc) aimed to prevent and control NCDs;
- To study the health and socio-economic impact of NCDs policies and the impact of various health and non-health governmental policies on NCDs;
- To develop, assess and use practical tools for monitoring and evaluation of NCD policies and programmes; and
- To improve the use of scientific evidence in the process of developing and implementing policies and programmes for prevention and control of NCDs.

### **3.4 *Capacity strengthening, resource mobilization and infrastructure development***

The research priorities are:

- To develop practical instruments and to conduct systematic assessment of national capacity for the prevention and control of NCDs;
- To conduct studies on NCD capacity development processes;
- To study various approaches aimed to fill existing gaps in capacity for the prevention and control of NCDs; and

- To develop and assess approaches aimed at empowering communities to engage in prevention, control and care of NCDs.

### **3.5 *Multisectoral and multilateral action to modify risk factors at population level***

The research priorities are:

- To study the socio-economic and other factors affecting health related choices (including consumer behaviours) at individual, family, community and national levels;
- To identify the core public health interventions (targeting population at large and high-risk groups) needed for NCD prevention and control, estimate the cost of implementing them and assess their health and economic impact;
- To conduct NCD research that assess the role of and involves different health and non-health sectors (e.g.: transport, health, education and environment, planners) including local administrative organizations;
- To develop and test models of effective public-private partnerships that support health;
- To study the links between the environment, urbanization and NCDs; and
- To review existing regulatory measures and legislations and to assess their impact on health.

### **3.6 *Health sector interventions***

The research priorities are:

- To assess different strategies, organizational models, interventions and technologies (e.g. information technology) for risk reduction and for early detection and treatment of NCDs;
- To develop, introduce and evaluate simple packages of evidence-based, cost-effective NCD interventions for use at primary health care

level and assess role of different groups of health workforce in implementing the same;

- To optimize use of health records in measuring the effect of health interventions;
- To use the applied medical anthropology approaches in studying health-seeking behaviours within ecological, social, political and economic context;
- To investigate equity issues in use of essential medicines and in health service delivery for prevention and control of NCDs (including their accessibility and affordability);
- To develop and assess tools for screening and stratifying individuals according to risk;
- To develop affordable drugs (including combined drugs), vaccines and technologies for prevention and management of major NCDs and evaluate them; and
- To assess the efficacy and safety of traditional medicines in the management of NCDs.

#### **4. Further Areas for Priority Research**

Evidence and experience clearly shows that NCDs are to a great extent preventable through interventions against the major risk factors and their environmental, economic, social, political and behavioural determinants. Countries can prevent and reverse the advance of NCDs if appropriate action is taken.

At the same time it is important to identify and support areas where new research has potential to bring further progress. WHO has a mandate to take leadership in proposing new research agenda. In this context the following area of NCD research might be considered for further prioritization:

- Conducting prospective cohort (including family cohort) studies to identify new NCD risk and protective factors as well as their determinants and assess the magnitude of their effects on NCDs;

- Proposing and testing models for reorienting health systems in resource-poor settings;
- Developing and applying community-based participatory research methods in addressing NCD prevention and control;
- Further evaluating fetal and early-life influences on NCDs;
- Investigating cultural and ethnic variation in risk factors to refine behavioural interventions;
- Studying cultural and ethnic factors in behaviour modification;
- Investigating various community-, family-, and peer-support, as well as self-care approaches in prevention, treatment and care of major NCDs;
- Collecting data on coverage and quality of basic NCD services delivered by public and private sector providers;
- Studying various approaches applied in health workforce development;
- Conducting a comprehensive analysis of gender issues in prevention and control of NCDs.

Annex 1 provides details on research priorities in tobacco areas.

## **5. Conclusion**

In view of growing health burden and very high economic impact of NCDs and taking into account the large potential for efficient prevention of these diseases, the Member countries of SEAR and their developmental partners, including WHO, should give more attention and allocate more resources to address this grossly under funded public health priority. There is a need for greater investment in research on NCDs and in the application of research finding.

The global knowledge needs to be translated to the national and local context of the countries of SEA Region. Research that addresses policy makers' and programme managers' information of NCD prevention and control should be prioritized.

The results of research conducted in other parts of the world and in particular in high-income countries, where most of the available scientific evidence comes from, may not be fully applicable in the context of the SEA Region. This is particularly so in terms of evidence on socio-economic and cultural determinants of NCDs and their major risk factors and on feasibility and effectiveness of public health interventions. In order to further develop and operationalize NCD plans and programmes, findings of global health policy and health system research need to be translated to the socio-economic, cultural, political and health system context of the Member countries of the Region.

This paper proposes a range of important NCD research priorities for review by the Thirsty-first Session of WHO SEA ACHR. Annex 2 outlines suggested recommendations for consideration by the ACHR.

## Annex 1: Research Priorities in Tobacco Areas

- **Behavioral research** on impact of existing health warnings in different Member countries and way to improve it for its optimal effectiveness;
- **Tobacco industry tactics:** Research on tobacco industry tactics in the context of SEAR in issues such as advertising, promotion and sponsorship, packaging and labeling, illicit trade, etc.;
- **Taxation** Health cost Studies in SEAR countries: A review of tax structure in SEAR countries and its critical analysis (including-Tax assessments, Tax vulnerability and effective ways to ensure appropriate tax policies and earmarking and how to ensure countries adopt tobacco tax earmarking);
- **Tobacco cessation:** Research on ways to maximally involve paramedics/national, regional programmes to incorporate tobacco cessation; special issues like cessation on smokeless tobacco products; Lessons learnt from tobacco cessation clinics/Strategies to expand Tobacco cessation programme like PAL/STOP TB programme and health systems in primary and secondary level; Assessment of workload of health workers – qualitative (Whether we can load tobacco control/cessation on them or not); Integration of smoking status in to the routine health information;
- **Policy Research:** Policy research on how to effectively implement smoke-free policies and on how to effectively implement efforts against tobacco advertising, promotion and sponsorship and advocacy research on health warnings on all kinds of tobacco products used in different SEAR Member countries; loopholes and gaps to the tobacco control legislations of the Region vis-à-vis the WHO FCTC;
- **Operational research** on mobilization of communities for implementation of smoke-free policies for advocacy and efforts against tobacco advertising, promotion and sponsorship;

- **Interventional Research:** A review of training programmes on tobacco-related education. Research on effectiveness of incorporation of tobacco-related issues in the school curriculum. Ways to incorporate tobacco-related issues in schools/colleges and in text books on public health; research on integration of appropriate cessation training in health professional institutions;
- **Rapid Assessment and Opinion polls** on certain issues like Effectiveness of ban on tobacco advertising, promotion and sponsorship Usefulness of tobacco cessation clinics and ways to improve those;
- **Alternative cash crops/alternative livelihoods:** Research on alternate cash crops in SEAR and on best alternative livelihoods of people engaged in tobacco production, and manufacturing in SEAR countries;
- **Tobacco and gender:** A review of implications of smoking and smokeless tobacco use and exposure to secondhand smoke in women especially in prenatal and post natal period in SEAR countries.

## **Annex 2: Proposed recommendations for consideration by the Thirsty-first Session .of WHO SEA ACHR**

Successful implementation of the prioritized research agenda proposed in the paper on research priorities in NCDs requires strong commitment and action of Member States, WHO secretariat and developmental partners.

### **Recommendations for Member States:**

- To develop, jointly with academic and research institutions, national NCD research agenda, based on national priorities;
- To invest in implementation of the identified NCD research agenda as part of national programmes for the prevention of NCDs through improving health research infrastructure and strengthening capacity of research workforce;
- To link research findings to national health information system;
- To establish national reference centres, networks and other mechanisms to coordinate implementation of prioritized NCD research agenda;

### **Recommendations for WHO:**

- To collaborate with Member countries and with developmental partners and donors in setting, implementing and funding the prioritized NCD research agenda;
- To facilitate mobilization of resources and coordinate international support for priority NCD-related research focusing on health policy and health systems;
- To facilitate capacity building for conducting NCD research and for using the research evidence;
- To facilitate sharing among member States of important research findings and in particular those relevant to NCD policy development, planning effective interventions and measuring performance and outcomes;
- To strengthen the role of WHO collaborating centres in supporting implementation of the prioritized NCD research agenda.

## **Recommendations for international partners**

- To support countries in building capacity for conducting priority research required for NCD programme development, implementation and evaluation;
- To support, and work jointly on implementation of prioritized NCD research agenda at the regional and national levels;
- To strengthen and support WHO collaborating centres and national centres of expertise in the area of the prevention and control of NCDs.