



Supporting efforts to improve the Myanmar healthcare system by prioritized research agenda

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National Health Plan (2011-2016), priorities actions

Chronic non-communicable diseases

- * Cardiovascular disease
- * Diabetes Mellitus
- * Cancer
- * Chronic respiratory disorders

Non-communicable diseases/conditions of public health importance

- * Accidents and injuries
- * Disabling conditions (Blindness, Deafness, Community based rehabilitation)
- * Mental Health
- * Substance abuse
- * Snake bite

INSUFFICIENT PHYSICAL ACTIVITY



12.5 %



18.8 %



38.1%



1.5%



20.3%



0.3%



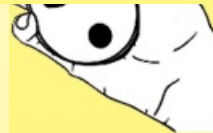
INSUFFICIENT PHYSICAL ACTIVITY



12.5 %



18.8 %



24.7%



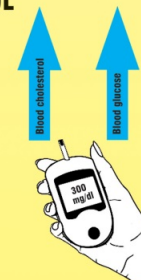
RAISED BLOOD CHOLESTEROL (More than 5.0 mmol/L or 190mg/dl)

Both Sex
36.7%



RAISED BLOOD GLUCOSE (FBS \geq 7 mmol/L or 126mg/dl 2HPP \geq 11.1 mmol/L or 200mg/dl)

Both Sex
10.5%



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Goal: Contribute to health reform towards equitable and universal healthcare

*National
NCD policy
adopted*

*Annual
increase in \$
for NCDs*

*National
health
budget >5%*

Improved evidenced-based NCD policy and improved NCD health services



Enhanced
research &
policy analysis

Operational
research

Greater NCD
knowledge:
policy makers,
implementers

Increased NCD
policy dialogue
with wider
range of
stakeholders

Steps for NCD research agenda

- Review of available evidence on NCDs and risk factors
- Discussion of key findings on gaps
- Framework for priority research agenda
- Prioritization of research to address key evidence needs
- Support program managers, institutions, researchers and decision makers for policy

Aims

- Focus on key research issues that are likely to have the greatest potential to impact prevention and control of NCDs
- Generate knowledge where there are gaps
- Help translate available knowledge into policy and practice through innovative approaches

Initial Review of research on NCDs

1. Research gaps were identified through a literature review of the research conducted in Myanmar plus country-specific research from outside Myanmar

- Keyword searches of electronic databases
- Manual searching of papers within Myanmar academic and government institutions.
- A range of publication types were included in the search: Published studies, Conference proceedings and abstracts, unpublished research and other reports/documents, systematic search and collections

2. Ethics Review Committee inquiry

3. Key informant interviews of leaders from the health sector

1. Literature Review Methods

- Research activities on NCDs from 2000 to 2015
- 230 papers identified in review
- Included studies of prevalence, risk factors, knowledge and behaviours, interventions
- Included 145 papers
 - Prevalence: 58
 - Risk factors: 55
 - Interventions: 26
 - Care: 6

2. Ethics Review Inquiry Methods

- Met with Seven Ethics Review Committees
 - 5 Medical Universities
 - Dept. of Medical Research of Ministry of Health
 - University of Public Health
- Criteria
 - On-going research on NCDs: prevalence, risk factors, knowledge and behaviours, interventions

3. Key Informant Interviews

Method: 9 question tool, all open ended

- Opinions of the key NCDs research gaps in Myanmar
- Opinion of highest priority research needs for NCDs

Participants: Heads of universities, government departments, etc.

Sr. No.	Organizations/Institutions/Department	M	F	Total
1	NGO/INGO	2	1	3
2	Ministry of Health	1	1	2
3	Medical Universities	2	4	6
4	Department of Public Health	5	6	11
5	Agencies	1	0	1
6	Co-Investigators	2	4	6
	Total	13	16	29

Methods

- * This prioritized research agenda is consistent with international standards.
- * The agenda uses the same definition of research as the WHO Strategy on Research for Health
- * It divides the gaps in information found in Myanmar into four research domains agreed to by a consortium of countries and advocated by WHO, including
 - (i) social and economic determinants
 - (ii) (ii) behavioral risk factors (tobacco use, physical inactivity, obesity, unhealthy diet and harmful use of alcohol);
 - (iii) (iii) prevention, detection and care of major NCDs (CVD, cancer, chronic respiratory disease and diabetes)
 - (iv) (iv) relevant health policy, health equity and health systems issues.

Methods

- * The Research Advisory Committee (RAC) consists of active members of Myanmar's public health research, academic and program community. The members come from various schools and centers to ensure that the committee is balanced and that decisions are well informed and impartial.
 - * Using their differing perspectives and areas of expertise, they apply their own expertise to ensure high quality research recommendations.
 - * The findings from *An Assessment of Available Evidence on NCDs and their Risk Factors in Myanmar*
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- * The RAC members reviewed and discussed each research program, and they were edited to reflect their recommendations.

Global Priority Areas for NCD Research

- * Research on social & economic determinants
- * Behavioral risk factors (tobacco use, physical inactivity, obesity, unhealthy diet & harmful use of alcohol)
- * Prevention, detection & care of major NCDs (CVD, cancer, chronic respiratory disease, & diabetes)
- * Relevant health policy, health equity, & health systems issues

Social & Economic Determinants

- * Causes of common NCD risk factor distributions
- * Assess & monitor socioeconomic & environmental factors/underlying drivers over time
- * Influence of urbanization on lifestyles
- * Health impacts of urban & rural development programs

Behavioral Risk Factors (tobacco use, physical inactivity, obesity, unhealthy diet & harmful alcohol use)

- * Additional information needed to monitor behavioral risks beyond those included in STEPS
- * Intervention studies to change behavioral risks
- * Developing & promoting healthier models of food production, marketing, & consumption
- * Exploratory & mixed methods behavioral influences

Prevention, detection & care of major NCDs (CVD, cancer, chronic respiratory disease & diabetes)

- * Strengthen vital registration & HMIS
- * Cost-effectiveness studies of intervention implementation
- * Monitoring & evaluation of PEN utilization in Primary Health Care
- * Identify & deliver national interventions based on global “best buy” interventions
- * Task-shifting, family & self-care, & eHealth for NCD prevention & care
- * Use of health technology assessment & audit to improve quality of health care
- * Community-based assessments of quality, & satisfaction

Health Policy, Health Equity & Health Systems

- * Cost-effectiveness policy studies of fiscal & legal means of health protection
- * Monitor national targets & health policy enforcement
- * Evaluate health impacts of public policies on food security, trade, agriculture,
 - * & rural/urban development
- * Examine facilitators & barriers for cross-sectoral working for health
- * Sustainable development
 - * strengthen the prevention & treatment of substance abuse
 - * reduce deaths from Road Traffic Accidents
 - * reduce deaths from hazardous chemicals, air pollution, & soil contamination

Key Gaps in Myanmar Research of NCDs

- * Mortality from NCDs & monitoring of mortality over time
- * Morbidity from NCDs & monitoring over time
- * Metabolic/physiological risk factors within the population & monitoring of risk factors over time
- * Information for decisions on priority interventions to address key risk factors
- * Current levels of behavioral risk factors & monitoring of these risk factors over time
- * Information for the development of campaigns to address key behavioral risk factors

Key Gaps in Myanmar Research of NCDs

- * Assessment of key health (and other) system responses to NCD prevention & control
- * Information for decisions on key health (and other) system responses to address the NCD burden
- * Assessment of socio-economic & other underlying drivers that impact on NCD burden
- * Assessment of key environmental factors impacting on NCDs & general health
- * Information for decisions on key interventions to address environmental challenges
- * Information for monitoring changing environmental & other factors impacting on the burden of NCDs

Prioritizing

- * A survey was created for each member of the RAC to rate the research programs on three parameters (urgency, feasibility, and impact).
- * The ratings were scored by summing the responses in each parameter: high = 3, medium = 2, and low = 1, producing a total (between 3 and 9) for each research program.
- * The mean represented a final score for each research program, and these final scores were rank-ordered. In addition, participants were encouraged to designate sources of potential funding, and the responses were collected in the form of textual data.
- * Two research advisory committee meetings were held to prioritize the research agenda.
- * A total of 24 research priorities were identified by 36 members of RAC.

Sorted Research Priorities within Domain I: Social and Economic Determinants

Research Priorities	Rank
Causes of common NCD risk factor distributions	7.92
Occupational exposures & NCDs	7.16
Influence of urbanization & joblessness on lifestyles (youth & adult)	6.68
Assess & monitor socioeconomic & environmental factors/underlying drivers over time	6.68
Health impacts of urban & rural development programs	6.36
Mean	6.96

Sorted Research Priorities within Domain II: Behavioral Risk Factors

Research Priorities	Rank
Developing & promoting healthier models of food production, marketing, & consumption	7.72
Intervention studies to change behavioral risks	7.60
Additional information needed to monitor behavioral risks beyond those included in STEPS	6.72
Exploratory, community-based, & mixed methods behavioral influences	6.40
Mean	7.11

Sorted Research Priorities within Domain III: prevention, detection and care of major NCDs

Research Priorities	Rank
Strengthen vital, cancer registry, registration & HMIS	7.75
Monitoring & evaluation of PEN utilization in Primary Health Care	7.38
Task-shifting, family & self-care, & eHealth for NCD prevention & care	7.33
Identify & deliver national interventions based on global “best buy” interventions	7.08
Community-based assessments of quality, & satisfaction	7.04
Cost-effectiveness studies of intervention implementation and training programs	7.00
Use of health technology assessment & audit to improve quality of health care	6.42
Mean	6.97

Sorted Research Priorities within Domain IV: Relevant health policy, health equity & health systems issues

Research Priorities	Rank
Sustainable development: reduce deaths from Road Traffic Accidents	8.17
Evaluate health impacts of public policies on food security, trade, agriculture, & rural/urban development	7.29
Cost-effectiveness policy studies of fiscal & legal means of health protection, economic burden, & insurance	7.21
Monitor national targets and health policy enforcement	7.21
Sustainable development: strengthen the prevention & treatment of substance abuse	7.00
Sustainable development: reduce deaths from hazardous chemicals, air pollution, & soil contamination	6.88
Examine facilitators & barriers for cross-sectional working for health (community support)	6.33
Health impacts of urban & rural development programs	6.33
Mean	6.75

Discussion

- * Income inequalities and poverty levels are main drivers of NCD risks which is further exacerbated by poor information about different population groups.
- * One of the areas of research prioritized under behavioral risk factors by the RAC is the development and promotion of food production, marketing, & consumption.
- * Under the prevention, detection, and care of major NCDs, Myanmar's health system has a working registry and has implemented PEN.
- * National policies on road traffic accidents, food security, and catastrophic health insurance for families can increase the health and reduce exposure to risk for the general population. Cost-benefit studies will assist policy-makers develop the appropriate legislation.
- * The research prioritized in this report does not represent an exhaustive list therefore over time more areas requiring urgent attention will emerge.

Discussion

The RAC discussed issues for research in Myanmar. There is a divergence between the rising NCD burden and the research capacity and output of Myanmar. The reasons for this low output of research include:

- * inadequate training of professionals and poor infrastructure for research;
- * shortage of funds for research;
- * absence of effective leadership and peer support in research;
- * absence of a tradition of research;
- * research is often funded from external sources and addresses donor-driven research priorities that may not be appropriate for the context;
- * lack of economic impact and cost-effectiveness studies.

Thank you