PHILIPPINE NATIONAL HEALTH RESEARCH SYSTEM

NATIONAL UNIFIED HEALTH RESEARCH AGENDA 2011-2016

2011

TABLE OF CONTENTS

	Page
Background information	1
Purpose	2
Framework	2
Methodology	4
Research Priorities	5
Health technology development Health financing Health service delivery Socio-Environmental health concerns	5 8 10 14
References	15
Abbreviations/Acronyms Used	16

BACKGROUND INFORMATION

The National Unified Health Research Agenda or the NUHRA, a major document produced by the Research Agenda Committee (RAC) of the Philippine National Health Research System (PNHRS), serves as the country's template for health research and development efforts. The very first NUHRA specified the health research areas and topics that need to be addressed for 2006-2010. It was launched in 2006 and then updated in 2008. The NUHRA was a product of a series of regional and national consultations with stakeholders.

With the conclusion of the 5-year research agenda in 2010, an assessment of the NUHRA 2006-2010 to include the updated NUHRA 2008-2010 was done to determine its relevance and implementation. Findings of the assessment revealed that the NUHRA's formulation process was perceived as highly participatory and effective involving various stakeholders at the provincial, regional, and national levels. Despite limitations in budget and time, the NUHRA was developed, with the health research priorities perceived as relevant to the country's public health situation particularly addressing the health issues of the poor and disadvantaged segments of the population. On the downside, private sector participation in the process was perceived as minimal. Further, the research priorities were seen as too public health oriented and too many with the limited resources for research. With regard to the process of formulating the NUHRA 2011-2016, some respondents opined that having a new series of consultations would not yield new health research priorities since the country's public health situation has not changed.

The new NUHRA 2011-2016, still a product of consultation, is a consolidation of the research priorities of the four core agencies of the PNHRS, namely the Department of Health, the Philippine Council for Health Research and Development – Department of Science and Technology, the Commission on Higher Education, and the National Institutes of Health, University of the Philippines – Manila. Each of the core agencies had their respective research priority setting activities where stakeholders' consultation is integral in the formulation of their research agenda.

In the light of the NUHRA assessment findings, the RAC resolved to focus the research agenda on research priorities where there is greater assurance of funding and commitment from the core agencies.

PURPOSE

- To provide focus and direction on health research and development efforts that will address the country's health concerns for 2011-2016
- To serve as a guide where policy makers, funding and donor agencies and researchers from public and private sectors should invest to ensure the health and productivity of the country's citizenry
- To assist in providing evidence based solutions to pressing national and local health problems
- To serve as basis to maximize resource utilization and minimize duplication of research efforts

FRAMEWORK

The formulation of the NUHRA 2011-2016 is anchored on the following national and international commitments:

The <u>Millenium Development Goals</u> (MDGs), which are eight international development goals adopted by countries to eradicate extreme poverty and hunger, reduce child mortality rates, improve maternal health, combat diseases, ensure environmental sustainability, achieve universal primary education, gender equality, and develop global partnership for development by the year 2015.

The <u>Philippine Development Plan 2011-2016</u>, the country's development blueprint that intends to give the Filipino people a better chance of finding their way out of poverty, inequality, and the poor state of human development. Chapter 8 of the plan covers social development which translates inclusive growth by ensuring equitable access to adequate and quality basic social services and assets especially by the poor and vulnerable. The health strategies aim to provide full financial protection, improve access to quality health care facilities, and attain the MDGs by focusing on the following public health

programs: maternal and child health, TB, dengue, malaria, and HIV-AIDS in addition to emerging diseases, and non-communicable diseases such as cancer, diabetes mellitus, and end-stage renal disease.

The "Aquino Health Agenda: Achieving Universal Health Care for all Filipinos" provided for three strategic thrusts to achieve universal health care or "Kalusugan Pangkalahatan" (KP), i.e., 1) rapid expansion in the National Health Insurance Program (NHIP) enrollment and benefit delivery using national subsidies for the poorest families; 2) improved access to quality hospitals and health care facilities through accelerated upgrading of public health facilities; and 3) attainment of the health-related MDGs by applying additional effort and resources in localities with high concentration of families who are unable to receive critical public health services.

The <u>Presidential Coordinating Council on Research and Development's (PCCRD)</u> <u>National R&D Priorities Plan 2011-2016</u>, which will serve as a guide in the allocation and utilization of government R&D funds and as a coordination tool to synchronize all R&D efforts in the government. The plan covers the development of priority products and technologies for 10 priority sectors including health.

The <u>DOST Five-Point Priority Program for 2011-2016</u> supports the following: development of solutions to pressing national problems; development of appropriate technologies to create growth in the countryside; harnessing technology to improve competitiveness; using S&T to enhance delivery of government and social services; harnessing emerging technologies to boost national competitiveness; and other support programs.

METHODOLOGY

The formulation of the core agencies' research agenda is grounded on a consultation process. The Department of Health (DOH), Philippine Council for Health Research and Development – Department of Science and Technology (PCHRD - DOST), Commission on Higher Education (CHED), and the National Institutes of Health - University of the Philippines Manila (NIH - UPM) separately conducted several consultations as part of their research priority setting activities.

DOH

Mostly operational in nature, the DOH agenda underwent a process of consultation with all the concerned DOH offices including the Centers for Health Development and health partners. Health issues and concerns were also elicited from the existing documentation of management meetings and experts' inputs through multisectoral multidisciplinary consultations. Values criteria were used to prioritize the agenda relative to its plan of implementation.

PCHRD-DOST

The PCHRD-DOST research priorities evolved from the PCCRD National R&D Priorities Plan (NRDPP) 2011-2016 and the DOST 5-point priority program for 2011-2016. The PCCRD NRDPP resulted from a series of consultation with stakeholders to include those from the regions.

The health research priorities in the NRDPP were presented to experts and stakeholders from the public and private sectors for validation and/or refinement. The consultation activities were guided by the criteria for technology identification and for priority setting.

CHED

The natural sciences research priorities which include the health related priorities were initially identified in a series of consultations with a group of technical experts. The output of the experts' consultation was referred to the CHED Technical Panel for Natural Sciences for review and endorsement.

NIH - UPM

The research priorities were discussed and finalized in a management action planning workshop involving scientists and management of the NIH - UPM together with those from other units and colleges of UP Manila.

RESEARCH PRIORITIES

The research priorities are classified into four major areas, specifically health technology development, health financing, health service delivery, and socio-environmental health concerns. Specific priority research topics are listed for each major research area.

HEALTH TECHNOLOGY DEVELOPMENT

Research Area	Description	Specific technologies/topics
Diagnostics	Development of diagnostic kits for priority infectious diseases and non-communicable diseases for the early detection and/or prediction of disease and mortality, utilizing existing technologies that are off-patent or lapsed technology and/or novel technology. Such technology will also look at genetic or biological markers associated with DM, CVD, and cancer. Priority diseases: Infectious diseases 1. Dengue and dengue-like illness 2. Multidrug Resistant/Extensively Drug Resistant Tuberculosis (MDR/ XDR TB) 3. Drug-Resistant Malaria 4. Influenza-like illness 5. Leptospirosis 6. Sepsis 7. Human immunodeficiency virus (HIV) 8. Hepatitis	■ Point of care - Latex agglutination - Lateral flow assay - Dipstick - Isothermal device - Biosensors ■ Screening/ Confirmatory/ Prognostic - Latex agglutination - Lateral flow assay - Dipstick - Isothermal device - Biosensors - Immunoassay - Nucleic Acid Testing - Immunochemistry

Research Area	Description	Specific technologies/topics
Diagnostics (cont'd)	Non-communicable diseases 1. Myocardial infarction 2. Colorectal cancer 3. Stroke 4. Diabetes Mellitus 5. Breast Cancer 6. Autoimmune/Immunologic diseases or deficiencies	
Genomics / Molecular technology	Molecular and genomics technologies use the information in the human genome in the design of vaccines, therapeutics, and diagnostic devices or products. Priority diseases: 1. Cardiovascular Diseases (CVD) 2. Infectious Diseases (TB, Dengue, and Influenza) 3. Cancer 4. Diabetes 5. Neurodegenerative Diseases For cancer: 1. Breast Cancer 2. Lung Cancer 3. Liver Cancer 4. Cervical Cancer 5. Colon Cancer Candidate biomarkers 1. Cardiovascular disease: CYP3A4, CYP2C9, CYP2B6, P2Y12 (drug resistance markers applicable to other diseases) 2. Infectious diseases: HLA-A, HLA-B, etc., dengue serotypes 1-4, pfmdr1 3. Cancer: TAG72, EGFR, VEGF, ER1, caspase3, CD44, p53 4. Diabetes: adiponectin, apolipoprotein B, C-reactive protein, ferritin 5. Neurodegenerative disease: beta amyloid protein, total tau protein, phosphorylated tau	Omics technology (a) Biomarker identification via: Genomics Transcriptomics Proteomics Metabolomics (b) Host-pathogen omics Adult stem cells (mesenchymal/ cord/ induced pluripotent stem cells) Biologics Vehicles Biologics Small molecules

Research Area	Description	Specific technologies/topics
Drug discovery and development	Researches will aim to discover new drugs which can be developed up to the pre-clinical stage. It will involve the discovery of compounds or molecular drug targets (genomics) that can serve as candidates for drug development. Drugs will be developed for common infectious diseases and lifestyle related disorders.	Pre clinical drug development from natural substances (herbal and marine sources)
Functional foods	Researches will involve the determination of health benefits and safety assessment of food or food components in reducing risk for disease occurrence, specifically lifestyle related diseases such as CVD, diabetes, and cancer.	 Malunggay Yacon Coconut products (coconut flour, coco sap sugar) Ginger Brown rice Probiotics Sago palm tree
Hospital Equipment and Biomedical Devices	Development of affordable, safe and reliable hospital equipment and biomedical devices.	 Ventilator (Adult / Neonatal) Prosthesis Minimally invasive surgical and rehabilitation equipment LED Operating Room lights Anaesthesia machine
Information and Communication Technology (ICT) for Health	Development of user-friendly ICT solutions to accelerate the gathering and processing of health and related information for policymaking, and to deliver quality healthcare services	 Public Health Surveillance/Health Intelligence Systems Telehealth services and systems Interface for ICT-enabled medical devices ICT-enabled health services

HEALTH FINANCING

Research Area	Description	Specific technologies/topics
Financial Risk Protection	Financial risk reduction means eliminating, if not greatly reducing the amount patients must pay out of pocket to avail health services. The Benefit Delivery Review jointly conducted by DOH and PhilHealth in 2008 highlighted the need to increase enrollment coverage, improve availment of benefits and increase support value in order for the NHIP to provide Filipinos substantial financial risk protection.	 Health Budget Expenditure Studies (Regular and Special Budgets) Evaluation and assessment of existing health budget and expenditures: National vs. Local, and Government of the Philippines (GOP) vs. external budget allocations Analysis of the DOH budget and Health Sector Expenditure using Expenditure Tracking System (ETS) and System of Health Accounts (SHA) Sub-Accounts for Non-Communicable Diseases including trauma Determine the cost of preventive interventions versus cost of care for non-communicable diseases including trauma Assessment and impact studies in enhancing Payment Provider Mechanisms Application of Benefit Delivery Reviews to increase/improve support value, benefits and coverage No Balance Billing Policy: Assessment / evaluation of implementing No Balance Billing in DOH Hospitals Case Mix Implementation: Initial evaluation of 23 case payments in hospitals Out patient benefit mechanisms and monitoring and evaluation systems Effects of increased Sponsored Program (SP) enrollment on the income of private hospitals Assessment of PhilHealth Benefits Assess outpatient benefit package for regular and sponsored programs to support program scale-up or expansion

Research Area	Description	Specific technologies/topics
Financial Risk Protection (cont'd)		 Legal research to review the NHIP Law and its Implementing Rules and Regulations
		Entitlements of all Filipinos under Kalusugan Pangkalahatan (KP)
		Studies related to catastrophic coverage
		Studies on catastrophic illnesses, prioritization of illnesses, extent of the coverage, and the needed premiums
		Engaging the private sector for provision of supplemental benefits
		Role of HMOs and other private insurance in the social health insurance schemes, e.g. role of private sector in providing supplemental package
		Validating case rates and mechanisms for price setting
		Studies related to premiums paid for health coverage
		Effect of increased SP premium of national government on the local government unit's (LGU) enrollment of informal poor
		Funding the premiums of the informal sector (Quintile 2)
		Effect of increasing the premium for overseas Filipino workers (OFW)
		Implication of increasing the premium of the poorest sector on the contribution of other PhilHealth Members
		Capitation estimates of outpatient and inpatient services
		Studies on improving the NHIP coverage, availment, and support value
		 Investments and resources to implement KP

Research Area	Description	Specific technologies/topics
Financial Risk Protection (cont'd)		■ Target Beneficiaries Health-seeking behavior of families identified as poorest by the National Household Targetting System-Poverty Reduction (NHTS-PR) of the Department of Social Welfare and Development (DSWD) after being covered by PhilHealth.

HEALTH SERVICE DELIVERY

Research Area	Description	Specific technologies/topics
Improving access to quality hospitals and health care facilities	To improve access to quality hospitals and health facilities, government-owned and operated hospitals and health facilities will be upgraded to expand capacity and provide quality services. The capacity to attend to traumatic injuries and other type of emergencies and manage common causes of morbidity and mortality especially non-communicable diseases and their complications will be enhanced.	 Responsiveness of health system Determine access and satisfaction levels of clients, especially the poor on health services, facilities, human resource and other resources Public-Private Partnership Determine potential resource, capacities, gaps of private sector to beef-up support for universal health care (UHC) implementation according to strategic instruments or goals (e.g., human resource, technology, health facility enhancement) Review and analyze the existing Basic
		Emergency Obstetric and Newborn Care (BEmONC) and Comprehensive Emergency Obstetric and Newborn Care (CEmONC) system in terms of facilities, human resource expertise, usage and usefulness - Evaluate functionality of each Rural Health Unit (RHU) and Barangay Health Station (BHS) in relation to district hospitals

Research Area	Description	Specific technologies/topics
Improving access to quality hospitals and health care facilities (cont'd) Improving provision of public health services	Although the overall health status of Filipinos has improved, the Philippines is lagging behind in reducing maternal and infant mortality. Disparities in health outcomes are evident across income levels and geographic areas. KP aims to improve provision of public health services to achieve the MDGs.	Determine voice of customer What are the actual health needs of patients suffering from chronic illnesses such as dialysis? How can patients at risk of nutritional deficiencies be cared for? New and alternative ways of health care delivery How health care can be extended to the settings of home and community particularly for chronic diseases Human resources and capacities needed Improve design and implementation of public health surveys Establish national demographic health survey (NDHS) with provincial level disaggregation to provide data for managing performance of Provincewide Health System (PWHS) Local Health Governance Optimal level of devolution to establish effective local health governance Data on geographically isolated disadvantaged area (GIDA) Establish data on GIDA and their performance to provide data for managing inequities
		Data on urban health Establish data on wealth classification of barangays in cities and their performance to provide data for managing inequities in urban slums (possibly, using the DSWD method)

Research Area	Description	Specific technologies/topics
Improving provision of public health		Health Needs and Services for Special Population Groups
services (cont'd)		Occupational Health Services for the Informal Sector
		Determine appropriate occupational health services for the Informal Sector through the Rural Health Units or Mobile Clinics
		- Overseas Filipino Workers (OFWs)
		Provide in-depth data and analysis on the desired and required health services for OFWs
		- Elderly/Seniors/Garantisadong Pang- matanda
		Provide in-depth data and analysis on the desired and required health services for OFWs
		 Health Promotion for High Risk Individuals
		Determine impact of health promotion activities for high risks individuals (e.g., smoking, non communicable diseases, etc.)
		Models for access
		Determine models that will increase and sustain access to health services by the urban poor, people living in GIDAs, indigenous peoples, persons with disabilities, etc.
		Enhancement of service delivery and referral
		Problems and successes on the use of sea ambulances and mobile bus clinics in the delivery of health services

Research Area	Description	Specific technologies/topics
Improving provision of public health		 Capacitating Human Resources for Health
services (cont'd)		Human Resources for Health (HRH) Master Plan Reformulation
		 Inventory of staff complement and capacities and technology support to implement UHC programs and thrusts.
		Funding and technical assistance implications
		 Evaluation of service provision programs e.g., Nurses Assigned in Rural Services (NARS) project, RNHeals (Registered Nurses for Health Enhancement and Local Service)
		- Strengthen HR commitment to physical therapy (PT) care through annual credentialing and privileging, both permanent and temporary
		 Need to regulate Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) providers and standardize their training
		 Efficient approach/model for scale up of deployment of community health teams (CHT)
		Time motion study for CHT to produce output
		Evaluation of CHT performance and impact on access to health care (safety, accessibility, and affordability)
		Sustaining CHT mobilization (logistics)
		■ Contracting and Procurement
		Review/assess the implementation of the Procurement Law in DOH. Identify bottlenecks and challenges

Research Area	Description	Specific technologies/topics
Improving provision of public health		Performance and Budget Utilization Reviews
services (cont'd)		Comprehensive report and profile of DOH-Central Office, LGU, CHD, hospital and donor performance
		Integrated reports on Monitoring and Evaluation for Effectiveness and Equity (ME3) and Performance Governance System (PGS) budget (regular, suballotment, grants) reviews and reports

SOCIO-ENVIRONMENTAL HEALTH CONCERNS

Research Area	Description	Specific technologies/topics
Environmental and climate change	Disease transmission is affected by environmental health which refers to the control of physical, biological, chemical and socio-cultural factors. Climate change is one of the components of environmental change. In reality, it is just one dimension of change brought by the environment.	 Studies to develop cost-effective technologies to prevent / control / monitor environmental pollution Development of integrated interventional models to reduce prevalence of infectious diseases affected by changes in the environment (e.g., malaria, dengue, leptospirosis, cholera and typhoid, tuberculosis MDR and XDR) Correlation of climate sensitive diseases to increased temperature, rainfall, and humidity Reduction of prevalence of water and sanitation related diseases
Health social sciences (including community development)	Diseases are not merely products of pathological processes due to infection, stress, etc., but they are also products of the interaction of bio-psychosocial and cultural milieu. Political and policy decisions of the state impact on health of the people. An understanding of the non-biological character of health would deepen the understanding of health and disease, and dynamics of disease.	 Health social science approach in health research and community development to address emerging concerns/issues on sexual and reproductive health, childhood illnesses, chronic illnesses, and mental health.

REFERENCES

Commission on Higher Education. *Memorandum Order No. 42, Series of 2010, CHED Priority Research Areas in the Natural Sciences.* 2010.

Department of Health. *Administrative Order No. 2010-0036, "The Aquino Health Agenda: Achieving Universal Health Care for All Filipinos"*. In http://www.doh.gov.ph/files/ao2010-0036.pdf accessed 22 July 2011.

Department of Science and Technology. *The DOST Five-point priority program for 2011-2016.* 2011

Executive Order No. 604, Creating the Presidential Coordinating Council on Research and Development. In http://www.gov.ph/downloads/2007/02feb/20070216-EO-0604-GMA.pdf accessed 22 July 2011.

Jimenez, P., Arguelles, M. *An Assessment of the NUHRA 2006-2010.* PCHRD-DOST, 2010.

National Economic and Development Authority. *Philippine Development Plan 2011-2016*. In http://devplan.neda.gov.ph/ accessed 22 July 2011.

UNICEF. *Millenium Development Goals*. In http://www.unicef.org/mdg/ accessed 22 July 2011.

ABBREVIATIONS / ACRONYMS USED

ACLS Advanced Cardiac Life Support

AIDS Acquired Immune Deficiency Syndrome

BEMONC Basic Emergency Obstetric and Newborn Care

BHS Barangay Health Station
BLS Basic Life Support

CEMONC Comprehensive Emergency Obstetric and Newborn Care

CHD Center for Health Development
CHED Commission on Higher Education

CHT Community Health Team CVD Cardiovascular diseases

DM Diabetes mellitus
DOH Department of Health

DOST Department of Science and Technology

DSWD Department of Social Welfare and Development

ETS Expenditure Tracking System

GIDA Geographically Isolated Disadvantaged Area

GOP Government of the Philippines
HIV Human Immunodeficiency Virus
HMO Health Maintenance Organization
HRH Human Resources for Health

ICT Information and Communication Technology

KP Kalusugang Pangkalahatan

LED Light-emitting diode
LGU Local Government Unit

MDGs Millennium Development Goals

MDR TB Multi Drug Resistant TB

ME3 Monitoring and Evaluation for Effectiveness and Equity

NARS Nurses Assigned in Rural Services
NDHS National Demographic Health Survey
NHIP National Health Insurance Program

NHTS-PR National Household Targeting System – Poverty Reduction

NIH National Institutes of Health

NUHRA National Unified Health Research Agenda

OFW Overseas Filipino Workers

PCCRD Presidential Coordinating Council on Research and Development

PCHRD Philippine Council for Health Research and Development

PGS Performance Governance System

Philippine Health Insurance Corporation
PNHRS Philippine National Health Research System

PWHS Province-wide Health System RAC Research Agenda Committee

RHU Rural Health Unit

RNHeals Registered Nurses for Health Enhancement and Local Service

SHA System of Health Accounts

SP Sponsored Program

TB Tuberculosis

UHC Universal Health Care

UPM University of the Philippines-Manila XDR TB Extensively Drug Resistant TB

Philippine National Health Research System RESEARCH AGENDA COMMITTEE

Chair : Dr. Eden R. Divinagracia — PNGOC
Co-Chair : Ms. Arlene S. Ruiz — NEDA
Members : Prof. Cynthia P. Cordero — UP Manila

Ms. Ma. Loida Y. Sevilla — Plan International Dr. Teresita S. Cucueco / — DOLE-OSHC

Ms. Fortunata L. Baco

Dr. Antonio D. Ligsay - PCHRD-DOST

Dr. Elizabeth R. Matibag /

Ms. Rosa G. Gonzales – DOH
Ms. Luthgarda P. Ramos – CHED
Dr. Ernesto V. Balolong, Jr. – NIH-UPM

Technical Secretariat: Ms. Ma. Elizabeth R. Cajigas – PCHRD-DOST

Ms. Sweetmavourneen P. Agan - PCHRD-DOST

Ms. Clarissa B. Reyes – DOH

For more information, contact the Research Agenda Committee c/o --

The RAC Secretariat

Philippine Council for Health Research and Development

Department of Science and Technology

Gen. Santos Avenue, Bicutan, Tagig City

Tel. nos. 837-75-35; 837-75-36 Fax nos. 837-29-24; 837-29-42

E-mail: pnhrs_resmngtcom@yahoogroups.com