

**REGIONAL UNIFIED
HEALTH RESEARCH
AGENDA 2017-2022**

REGION XI

DAVAO REGION



Table of Contents

Introduction	1
Regional Consultation.....	2
Health Research Priorities of the Region.....	2
Maternal, newborn, child health and nutrition.....	3
Infectious diseases	3
Reproductive health.....	3
Nutrition, functional food, and food safety	4
Health economics and governance.....	4
Non-communicable diseases.....	5
Climate change and disaster risk reduction management.....	5
Traditional/herbal medicines and natural products.....	6
Environmental health.....	6
Behavioral and mental health	6
Health and nutrition in GIDAs	6
Occupational health.....	7
Information and communications technology in health.....	7
Innovation in health technology	7
References.....	8
Annex A: Participants of regional consultation	9
Annex B: Results of priority scoring	11



REGIONAL UNIFIED HEALTH RESEARCH AGENDA 2017-2022

Region XI: Davao Region

Introduction

The Philippines is at a turning point where it is slated to reap the benefits of health research investment towards the country's economic, social, and scientific growth (Philippine National Health Research System, 2018). Research has a huge role in the competitive edge of the country to boost its health economy local and abroad. There is huge potential in expanding innovation, health services in the country, and production of health goods, as well as in building the capacity of highly qualified Filipino healthcare managers and researchers. Setting a research agenda is essential to maximize the impact of investments and is regarded as key in strengthening health research systems.

The Philippine National Health Research System, with its goal to enhance health status through health research, generates the National Unified Health Research Agenda (NUHRA) as one of its core areas, alongside ethics, utilization, resource mobilization, system monitoring and evaluation, and capacity building. While the NUHRA serves as the country's template for health research and development efforts, previous evaluations revealed that the Regional Unified Health Research Agenda (RUHRA) was still perceived as more important as it was more relevant to regional problems and gave direction at the regional level (Ramos-Jimenez et al., 2015).

In the development of NUHRA 2017-2022, the Regional Health Research and Development Consortium (RHRDC) of each region was included in the identification process of health research priorities through the conduct of a consultation with other relevant stakeholders. Their inputs, together with technical papers and situationers that defined the national and regional status of health research, were considered as important contributions in the formulation of the NUHRA and RUHRA (Philippine National Health Research System, 2018). The RUHRA presents the identified health research priorities and a contextual analysis of each and should guide researchers and funders alike in the development of more relevant health research in the region for the next six years.

Beyond research agenda setting, there is a challenge in equipping health professionals and researchers with good opportunities in an academic environment of innovation and research. Each region should also consider strengthening capacity in the implementation of RUHRA, management of research, and ultimately generating research outputs that can compete in local and global markets.

Health-related researches conducted in the region since 2012 were focused on clinical research on plant or animal derivatives, evaluations, and determining the incidence rate of a disease. Researches with societal and service impact were also conducted and include knowledge, attitude, and practices of resident physicians, human immunodeficiency virus

(HIV) testing, health literacy, quality evaluation of drugs, and health insurance coverage, among others (Umag *et al.*, 2017). This document outlines the methods undertaken in the development of RUHRA and the health research priorities identified for Region XI.

Regional Consultation

The regional consultation for Region XI was held on 10-11 May 2017 facilitated by the Alliance for Improving Health Outcomes, Inc. in coordination with the Philippine Council for Health and Research Development Central Office, and the RHRDC XI. There were a total of 28 participants, 20 of which are from government agencies, five from the academe, two from hospitals, and one from a private organization (Annex A). The consultation defined the health needs and concurrent research priorities of different institutions through their representatives.

Each participant was provided with a regional consultation package, which included the consultation design and the program. Technical papers were presented to provide a context on the research and policies of government and multinational agencies. A regional situationer, which described the stakeholders, health research context, and health challenges, issues, gaps, and threats in the region, was also presented.

The research priorities and perceived needs of each representative were raised through small focus group discussions, with participants grouped according to three categories: academe, government agencies and non-government organizations, and health institutions. Each group was given metacards and asked to write down potential research topics. All groups proposed possible research topics, which were presented to the plenary by a representative from each group. The suggested topics were grouped under 14 general themes.

These themes were prioritized using criteria with designated scoring weights established by the stakeholders. The participants were given metacards wherein they wrote down suggestions for the criteria. After discussion and finalization, the following criteria was used: relevance or magnitude of the problem at 40%, impact or benefit at 30%, feasibility at 15%, and urgency or timeliness at 15%. A summary of the score generated per topic is provided in Annex B.

Health Research Priorities of the Region

The research priorities for Region XI comprise of 14 themes, namely: (1) maternal, newborn, child health and nutrition; (2) infectious diseases; (3) reproductive health; (4) nutritional, functional food, and food safety; (5) health economics and governance; (6) non-communicable diseases; (7) climate change and disaster risk reduction and management; (8) traditional/herbal medicines and natural products; (9) environmental health; (10) behavioral and mental health; (11) health and nutrition in GIDAs; (12) occupational health; (13) information and communications technology in health; and (14) innovation in health technology. Some of the themes have corresponding specific research topics. These themes and topics are presented below, together with a brief situational analysis or data specific to the region.



Maternal, newborn, child health and nutrition

Research to address MNCHN issues in the region

In 2015, the region had the highest maternal and infant mortality rate in Mindanao. Since 2012, the maternal mortality rate has been increasing and has not met the national target of ≤ 52 deaths per 100,000 live births. Only 50% of pregnant women in the region had four or more antenatal care visits in 2015 (Department of Health, 2015). The region has not met the 95% national target for vaccination coverage since 2012. Since 2014, none of the provinces in the region met the national target for low birth weight infants given iron (100% vs 43%), exclusive breastfeeding (65% vs 57%), and diarrhea cases given treatment (90% vs 63%) (Department of Health Regional Office XI, 2017). Research efforts should aim to address the high mortality rate and other issues related to maternal, newborn, and child health and nutrition (MNCHN) in the region. Specific research topics include:

- a. Impact evaluation on maternal and child health programs
- b. Breastfeeding
- c. Infant and young child feeding



Infectious diseases

Research on prevalent infectious diseases in the region, including HIV, dengue, and TB

While the region achieved the target set for tuberculosis (TB) incidence in 2012, the number of new cases has increased every year since and resulted in failure to meet the target in 2015 (Department of Health Regional Office XI, 2017). While the prevalence of HIV or acquired immunodeficiency syndrome (AIDS) is well within the national target, the incidence rate increased from 403 in 2014 to 448 in 2015. As of February 2017, Davao ranks fifth nationally among regions with the highest percentage of newly diagnosed HIV/AIDS cases (Department of Health, 2017). Research efforts should aim to address various issues related to HIV, dengue, and TB. Specific research topics include:

- a. HIV
- b. Dengue
- c. Drug adherence for TB and HIV



Reproductive health

Research on reproductive health, particularly adolescent practices and gender sensitivity

The region saw a vast improvement in contraceptive prevalence in 2013 and even exceeded the 65% national target in 2014. However, in 2015, contraceptive prevalence dropped to 54% and equaled the region's 2012 figure (Department of Health Regional Office XI, 2017). Nineteen percent of females had their first sexual activity before the age of 18, with women who initiate sexual activity earlier more likely to be adolescent mothers (Philippine Statistics Authority and ICF International, 2014). Research efforts should aim to address various

reproductive health issues such as adolescent sexual and reproductive health, gender sensitivity, and rising teenage pregnancy. Specific research topics include:

- a. Adolescent sexual reproductive health needs in the context of teenage pregnancy
- b. Adolescent sexual reproductive health and parents' concepts
- c. Unmet need for modern family planning
- d. Male involvement in reproductive health
- e. Gender sensitivity studies
- f. Family planning practices among indigenous peoples (IPs), Badjao, and Muslim population



Nutrition, functional food, and food safety

Research on nutritional interventions to improve the nutrition status of the population

In 2015, only 78% of food establishments in the region held a sanitary permit while 85% of food handlers had a health certificate (Department of Health, 2015). Research efforts should aim to address issues in stunted growth, hunger avoidance, nutrition status data, etc. Specific research topics include:

- a. Safe water in day care centers and elementary schools
- b. Functional foods as substitute for nasogastric feeding
- c. Healthy food and drink choices among school-aged children
- d. Nutrition in secondary schools/students
- e. School-based feeding effect on learning
- f. Installation of potable water in remote areas for the IPs
- g. Nutrition promotion
- h. Dietary supplementation
- i. Nutrition education
- j. Nutrition status of the IPs, persons with disability, and older persons in Davao region
- k. Nutrition program and federalism
- l. Nutrition human resources
- m. Food preservation
- n. Food fortification



Health economics and governance

Research on efficiency, equity, financial risk protection, and responsiveness of programs

According to the Bureau of Local Government Finance, 7.76% of Region XI's 2015 expenditure went to the Health, Nutrition, and Population Control. However, comparing this to the region's fiscal data since 2012 has revealed that, while the amount of expenditure on health has increased, the percent of health expenditure as part of total expenditure has decreased over time (Department of Finance, 2012; Department of Finance, 2013; Department of Finance, 2014; Department of Finance, 2015). Research efforts should aim to study the

efficiency, equity, financial risk protection, and responsiveness of programs in order to improve service delivery. Specific research topics include:

- a. Functionality of drug therapeutic committee
- b. Policy review of pharmacy inventory in hospitals
- c. Cost-effectiveness of Philippine integrated management of acute malnutrition
- d. Population migration and health
- e. PhilHealth utilization
- f. PhilHealth insurance coverage for mental health



Non-communicable diseases

Research on risk factors leading to NCDs and evaluation of NCD programs

The region failed to meet the national targets of risk factor prevalence for diabetes mellitus ($\leq 4.8\%$ vs 5.3%) and overweight adults ($\leq 23.5\%$ vs 32.8%) in 2015. The region also failed to meet the national target of <65 mortality rate from cardiovascular disease (Department of Health Regional Office XI, 2017). Research efforts should aim to address issues related to non-communicable diseases (NCDs) in the face of rising mortality rates due to NCDs in the region. Specific research topics include:

- a. Risk factors for NCDs
- b. Impact evaluation of NCD programs
- c. Meta-analysis of NCD research in the Philippines



Climate change and disaster risk reduction management

Research on service delivery and food preparations during disasters

In 2012, 24 notable incidents of typhoon were recorded which affected 4.3 million people in the region (UNOCHA, 2017). Research efforts should aim to address issues on health service delivery during disasters, food preparations for emergencies, etc. Specific research topics include:

- a. Global warming
- b. Nutrition in emergencies
- c. Alternative foods during emergencies
- d. Inclusion and strict implementation of minimum initial service package in the local disaster risk reduction and management plan
- e. Disaster nutrition



Traditional/herbal medicines and natural products

Research on development of medicines from local herbal plants

Research efforts should aim to study traditional and herbal medicines from discovery to formulation. Specific research topics include:

- a. Formulation of herbal medicines
- b. Indigenous knowledge systems and practices on herbal medicine
- c. Meta-analysis of exploratory research on traditional/herbal medicines



Environmental health

Research on the prevention and control of pollution

Research efforts should aim to address issues related to pollution. Specific research topics include:

- a. Pollution control



Behavioral and mental health

Research on risk factors and effectiveness of interventions for mental health

In the current political climate, addressing substance abuse concerns is a national priority and thus may recognizably receive more support from the government. Research efforts should aim to address issues on vaping and substance abuse. Specific research topics include:

- a. Effectiveness of community-based versus facility-based rehabilitation centers
- b. Mental health of adolescents in relation to suicide ideation and attempt
- c. Multiple risk behavior among adolescents
- d. Drug addiction



Health and nutrition in GIDAs

Research on health utilization and nutrition in GIDAs

Research efforts should aim to address health utilization challenges and nutrition practices of the IPs. Specific research topics include:

- a. Food and nutrition practices in geographically isolated and disadvantaged areas (GIDAs), including IPs
- b. Culture sensitivity on the delivery of basic services
- c. Access to healthcare in GIDAs



Occupational health

Research on health hazards in the workplace, particularly in relation to mining

Occupational health includes addressing risk factors at the workplace that may lead to communicable diseases, accidents, and other stress-related disorders. Research efforts should aim to address health issues related to mining and other industries. Specific research topics include:

- a. Prevalence of multi-drug resistant TB in mining areas
- b. Prevalence of interstitial lung diseases in miners
- c. Research on occupational hazards in other industries (plantation, farming, manufacturing, construction, etc.)



Information and communications technology in health

Research on technology development for improved health services

Inadequate information and communications technology has hampered policy-making and program formulation activities. Research efforts should aim to connect health and technology to improve service delivery. Specific research topics include:

- a. Health database and networking
- b. Improving systems in pharmacy inventory
- c. App-based/e-Health



Innovation in health technology

Research on development of technology in hospitals to increase its availability

Research efforts should aim to improve availability of technology and equipment in the region. Specific research topics include:

- a. Hospital equipment and biomedical devices
- b. Development of Filipino-made biomedical equipment

References

Department of Finance (2012). Statistics. In: Bureau of Local Government Finance, editor. Manila, Philippines: Department of Finance.

Department of Finance (2013). Statistics. In: Bureau of Local Government Finance, editor. Manila, Philippines: Department of Finance.

Department of Finance (2014). Statistics. In: Bureau of Local Government Finance, editor. Manila, Philippines: Department of Finance.

Department of Finance (2015). Statistics. In: Bureau of Local Government Finance, editor. Manila, Philippines: Department of Finance.

Department of Health (2017). HIV/AIDS registry of the Philippines. In: Bureau E, editor. Manila, Philippines: DOH.

Department of Health Regional Office XI (2017a). Child health dashboard. DOH Philippines. Available at: http://hiip.wpro.who.int/viz/phl_ro11_child_health.asp

Department of Health Regional Office XI (2017b). TB health dashboard. DOH Philippines. Available at: http://hiip.wpro.who.int/viz/phl_ro11_tb.asp

Department of Health Regional Office XI (2017c). Safe motherhood health dashboard. DOH Philippines. Available at: http://hiip.wpro.who.int/viz/phl_ro11_safe_motherhood.asp

Department of Health Regional Office XI (2017d). Non-communicable diseases health dashboard. DOH Philippines. Accessed from http://hiip.wpro.who.int/viz/phl_ro11_ncd.asp

Philippine National Health Research System. (2018) *National Unified Health Research Agenda 2017-2022*. Manila, Philippines: Department of Science and Technology.

Philippine Statistics Authority and ICF International (2014). National demographic and health survey. Manila, Philippines and Rockville, Maryland: PSA and ICF International.

Ramos-Jimenez, P., Aragonés, D. C., Mendoza, Y., Togonon, L., Yubia, M. & Amita, G. (2015) Assessment of the 2011-2016 National Unified Health Research Agenda (NUHRA) and the 2011-2015 Regional Unified Health Research Agenda (RUHRA). Report submitted to PNHRS-RAC and DOST-PCHRD.

Umag, Z., Sales, R. K. P., Chavez, F. & Malonzo, E. (2017). Health research capacities and concerns of Region 11: A general situational report. Report submitted to DOST-PCHRD.

UNOCHA (2017) *Philippines: Regional Profiles* UN. Available at: <https://reliefweb.int/report/philippines/philippines-regional-profiles-january-2017>

Annex A: Participants of regional consultation

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Luzbel Juaneza	Nurse II	National Commission on Indigenous Peoples (NCIP) RO XI
Isabelita Rayanes	Midwife III	NCIP
Franz Irag	Op Gen. Staff	Office of Civil Defense Region XI
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Annex B: Results of priority scoring

Rank	Topic	Relevance/ magnitude of the problem (40%)	Impact/ Benefit (30%)	Feasibility (15%)	Urgency/ Timeliness (15%)	Final score
1	Maternal, newborn, child health and nutrition	34.53	26.37	13.47	13.26	87.63
2	Infectious diseases	35.05	26.32	13.00	13.05	87.42
3	Reproductive health	33.74	25.89	13.05	12.42	85.11
4	Nutrition, functional food, and food safety	32.63	25.58	12.74	11.95	82.89
5	Health economics and governance	32.47	25.05	12.26	12.63	82.42
6	Non-communicable diseases	32.47	24.47	12.89	12.42	82.26
7	Climate change and disaster risk reduction and management	33.11	24.32	12.05	11.53	81.00
8	Traditional/herbal medicines and natural products	30.58	24.26	11.95	11.32	78.11
9	Environmental health	30.74	23.68	11.89	11.11	77.42
10	Behavioral and mental health	30.26	22.74	12.16	11.79	76.95
11	Health and nutrition in GIDAs	30.58	23.53	11.26	11.32	76.68
12	Occupational health	29.95	22.47	11.84	11.21	75.47
13	Information and communications technology in health	29.21	22.84	11.63	10.58	74.26
14	Innovation in health technology	27.68	20.21	11.00	10.26	69.16



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