

NIH Research Dialogue on Health Research Priority Setting in 11th Malaysia Plan: Summary report

20 March 2017 (Monday)

Auditorium Serbaguna E2, Putrajaya

Executive Summary

Introduction

The Dialogue took place in Auditorium, Complex E, Putrajaya on 20 March 2017 and was conducted by NIH Secretariat, Ministry of Health Malaysia.

The objectives of the dialogue were:

- To present research achievements from the year of 2011 – 2016;
- To provide the opportunity for stakeholders to identify strengths and gaps in researches and ideas to address the gaps; and
- To translate research findings into policy and practices.

To achieve these objectives, NIH Secretariat along with the Head of Clusters (Appendix A for list of committee) had identified all relevant stakeholders from the ministry to join the dialogue. The invitation was also extended to each Program within the ministry.

Before the dialogue, a series of workshops was conducted by all research clusters to assess 10th MP research findings, gaps, and identify the new research scopes under 11th MP. Each head of clusters had identified relevant researchers to attend the workshops. The findings from these workshops were presented during the dialogue.

Over hundred people participated in the dialogue (Appendix B for list of participants). The moderator for this dialogue was Dr. S. Asmaliza Ismail, the Director of NIH Secretariat.

Presentation

Five clusters had presented their achievements, future directions and research scopes selection during the dialogue session. The speakers were as below:

- 1) Dr Noor Ani binti Ahmad – National Health Survey Cluster
- 2) Dr Ahmad Faudzi Yusoff – Burden of Disease Cluster
- 3) Dr Muhammad Fadhli bin Mohd Yusoff – Non-Communicable Disease Cluster
- 4) Dr. Rafiza Shaharudin – Sustainable Environment and Climate Change Cluster
- 5) Dr Sondi Sararaks – Universal Access to Quality Health Care Cluster

Next Steps

The moderator thanked participants from each program for their suggestions and feedback that were given to the researchers during the dialogue. The dialogue had helped to improve collaboration among the stakeholders and the research arm of the ministry. The invitation and feedback letter will be sent to the particular stakeholders from each program to gather relevant suggestions and feedback for future collaboration.

Introductory session

Moderator: Dr. S Asmaliza Ismail, Director of NIH Secretariat, Ministry of Health Malaysia

The session started with the important components in Research and Development (R&D) that consists of:

1. Researchers – people who involve in conducting researches;
2. Priority areas—all researches done by the ministry must be policy driven and based on the priority areas;
3. Budget / research grant – limited budget allocation restrict, thus, it is important to ensure that researches done must be in line with priority areas;
4. Output and outcome – all researches done by the ministry of health must create an output and outcome that is different from the academic researches;
5. Utilization / translating – these researches are aimed to be translated into policy and practices by the ministry.

Previously in 9th MP Health Research Priority Areas, the identified scopes were 8 diseases and 3 cross cutting issues as below:

8 diseases:

1. Ischemic heart disease;
2. Mental illnesses;
3. Cerebrovascular diseases/stroke;
4. Road traffic accidents;
5. Cancers;
6. Diabetes;
7. Infectious diseases; and
8. Respiratory illnesses.

3 cross cutting issues:

1. Health Policy & Health Systems;
2. Pharmaceutical & Medical Devices; and
3. Medical Biotechnology.

Then, for 10th MP, the Health Research Priority Areas were identified based on clusters. There were 6 clusters for the 10th MP.

1. Burden of Disease;
2. Health System;
3. Empowerment;
4. Healthy Lifestyle;
5. Sustainable Environment / Go Green; and
6. Health Technology.

Now, for the year of 2016 – 2020, 5 clusters was identified for the 11th MP Health Research Priority Areas as below:

1. National Health Survey;

2. Burden of Diseases;
3. Non- Communicable Diseases;
4. Sustainable Environment & Climate Change; and
5. Universal Access to Quality Healthcare.

Each clusters has their own scopes of research as explained later during their respective presentation.

NIH had received a steady budget allocation for research. Table below showed the budget received for each MP.

Malaysia Plan / Year	Budget Allocation (RM million)
8th MP (2001 – 2005)	20
9th MP (2006 – 2010)	90
10th MP (2011 – 2015)	95
11th MP (2016 – 2020)	115 (recommended)

For the 11th MP, the EPU recommended a total of RM 115 million that is subjected to the approval of higher authority. For Rolling Plan 1 (RP 1 – 2016), a total of RM 22.5 million was approved by the JKPDA. Later for the year of 2017, a total of RM 19.5 million was approved for the first 4 clusters identified in the 11th MP.

As for the 10th MP, it was noted that there were less utilization and translation of research in the previous years.

Year / Budget Received (RM)	Research Achievements
2011 RM 21,115,342	101 projects 213 publications (peer reviewed journals) 57 technical reports 396 presentations (national & international) 3 patents Recognition by AIM – 7 commercializable products
2012 RM 15,000,000	105 projects 242 publications (peer reviewed journals) 70 technical reports 456 presentations (national & international) 3 patents Recognition – recipients at Anugerah Sains Negara
2013 RM11,655,720	105 projects 113 publications (peer reviewed journals) 93 technical reports 714 presentations (national & international) Recipient Anugerah Gold (ITEX 2013)
2014 RM 24,000,000	137 projects 218 publications (peer reviewed journals) 70 technical reports 773 presentations (national & international)

2015
RM 25,000,000

Recipient Anugerah Gold (ITEX 2014)
93 projects
294 publications (peer reviewed journals)
184 technical reports
883 presentations (national & international)

The NIH hopes that this dialogue will be a good platform for the researches to be taken into further action and research being translated into practices.

Generally, there were 6 phases of research dissemination for all the projects as below:

P1 Research has generated information worthy of a follow up

P2 Research already submitted to the higher authorities in the ministry

P3 Health authorities have seen this finding and is being reviewed

P4 Findings suitable for policy translation

P5 Policy implemented

P6 Policy implemented and evaluated to be successful

All clusters had identified their research achievement based on the phases mentioned above.

Cluster 1: National Health Survey (NHS)

Presenter: Dr. Noor Ani Ahmad, Institute for Public Health

The first cluster, National Health Survey was presented by the Head of Cluster, Dr. Noor Ani Ahmad from Institute for Public Health (IKU).

IKU has been doing the National Health and Morbidity Survey (NHMS) for the past 2 decades. The objective of this survey is to provide health related community-based data and information to support Ministry of Health in reviewing health priorities, program strategies and activities, as well as planning for allocation of resources.

Dr. Noor Ani Ahmad presented the survey that was done in 2011 – 2016 as below.

Year	Project Title	Scopes
2011	National Health and Morbidity Survey (NHMS) 2011	<ul style="list-style-type: none"> • Healthcare demands; • Non-communicable diseases (hypertension, diabetes, hypercholesterolemia) and risk factors; • Nutritional status and food intake; • Mental health and home injury; and • Chronic Kidney Disease (in Peninsular Malaysia only).
	Global Adults Tobacco Survey (GATS)	Tobacco use, cessation, economics and media coverage
2012	NHMS 2012: Malaysia School-Based Survey	<ul style="list-style-type: none"> • Survey on alcohol consumption, dietary behaviors, drug, hygiene, mental health, physical activity, sexual behaviors, tobacco, violence & injury, and protective factors; • Depression, stress, anxiety; and • Nutrition (meal patterns, behavior modification)
2014	NHMS 2013 – 2014: MANS	Meal pattern, habitual food intake, dietary intake, supplement intake, food security, nutritional status, and physical activity.
	NHMS 2014: RAAB	Blindness, visual impairment, cataract blindness, and cataract surgery.
2015	NHMS 2015	<ul style="list-style-type: none"> • Healthcare demands; • NCD and NCD Risk factors (diabetes, hypertension, hypercholesterolemia, nutritional status, dietary practice, smoking, alcohol, physical inactivity); • Mental health (children and adults), Disability, Anaemia; • Communicable diseases (tuberculosis, leprosy, dengue); • Traditional & Complementary Medicine, Health literacy.
2016	NHMS 2016: Maternal & child health	<ul style="list-style-type: none"> • Maternal health: antenatal, birth, postpartum care and morbidity; and • Child health: immunization, injury, infant feeding.

Then, she presented the study status in term of achievements, and gaps.

Scopes	Level of Dissemination	Identified Gaps
<p>Healthcare demands</p> <ul style="list-style-type: none"> • Health seeking behaviors • Health service utilization • Health expenditure 	<p>P5 – Program development healthcare transformation</p>	<ul style="list-style-type: none"> • Exploration of safety practices, attitudes, a proxy for inaccessible health care • Explore reasons for healthcare utilization and discrimination in access to healthcare • Measure the change of preference in utilization • Measure and estimate the outcome of health service, access of care and health status of vulnerable populations • To improve the data collection tools and systems • To improve the quality of healthcare utilization reporting • To engage with advanced analysis
<p>Non-Communicable Diseases (NCD)</p> <ul style="list-style-type: none"> • Hypertension • Diabetes • Hypercholesterolemia 	<p>P6 – Evaluation of current program (KOSPEN)</p> <p>P5 – National Strategic Plan for NCD (NSP-NCD) (2015 – 2025)</p>	<p>To explore the reasons for high rates of undiagnosed NCD and the increasing prevalence among young adults</p>
<p>NCD Risk Factors</p> <ul style="list-style-type: none"> • Alcohol • Tobacco • Physical inactivity 	<p>P5 – Malaysia Alcohol Action Plan 2013 – 2020 NSP-NCD 2015 - 2025</p>	<p>To evaluate current program being implemented and monitor for trends</p>
<p>Nutrition</p> <ul style="list-style-type: none"> • Obesity and meal pattern • Anemia 	<p>P5 – National Plan of Action for Nutrition of Malaysia (NPANM) (2016-2025) NSPNCD 2015-2025 Malaysian Dietary Guideline for Adolescent (2012) Recommended Nutrient Intake (RNI) (2016) Food Composition Data Base Table Childhood overweight and obesity plan of action (2016-2025) Malaysian Healthy Plate (2016)</p>	<ul style="list-style-type: none"> • To identify the causes of unhealthy dietary behavior and practices • To explore the causes of anemia and the prevalence of anemia among <15 years old

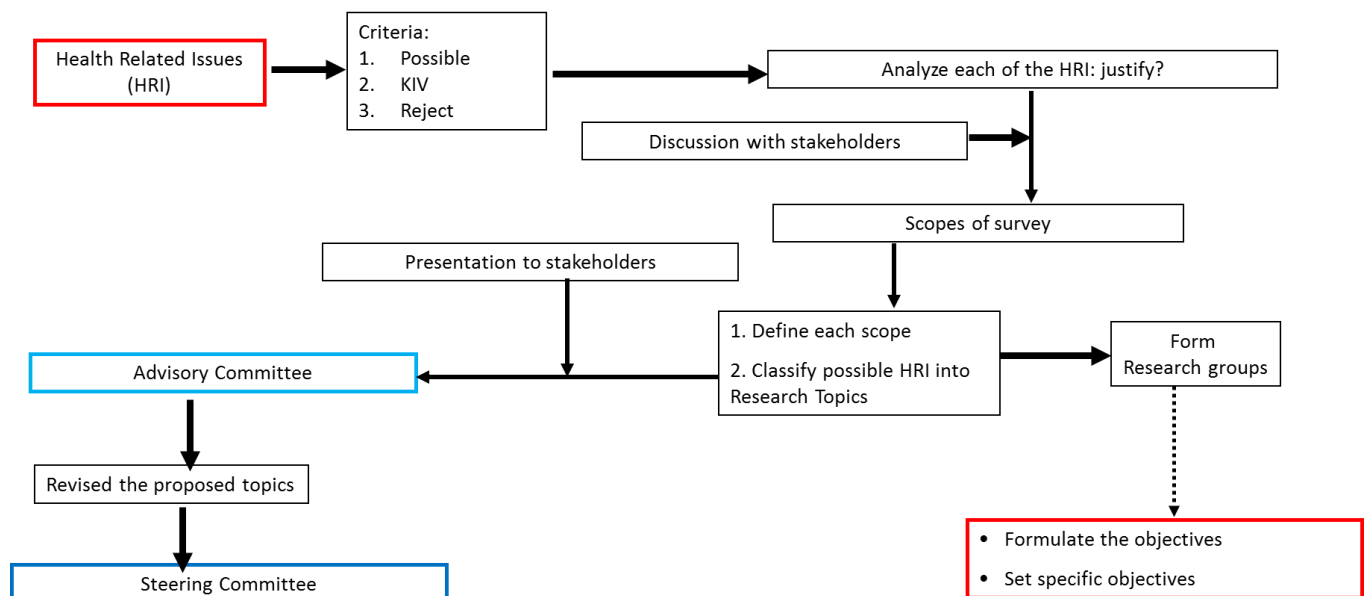
Scopes	Level of Dissemination	Identified Gaps
	KOSPEN (2013-2016) P6 – Malaysian Dietary Guideline (2010) P4 – NPANM III (2016-2025) National fortification of wheat flour with folic acid and iron.	
Mental Health <ul style="list-style-type: none"> Generalized anxiety disorders Depression Suicidal behaviors Stress 	P5 – Community Mental Health centers (MENTARI) Plan of action mental health 2016-2020 National Suicide Strategy and Plan of Action Healthy Mind at School	To evaluate current program being implemented and to identify specific mental health problems such as ADHD, autism and learning disabilities
Risky Behaviors <ul style="list-style-type: none"> Sexual behavior Drug Violence 	P5	To evaluate current program being implemented
TB, Leprosy and Dengue	P2	<ul style="list-style-type: none"> No information on actual prevalence of TB No information on level of knowledge and awareness about TB among Malaysian Barriers in mobilizing community
Disability and Injury <ul style="list-style-type: none"> Home injury Unintentional injury 	P5 – Disability inclusive program P4	<ul style="list-style-type: none"> Need to provide more data on high prevalence of disability among elderly Previously, in NHMS 2015, self – reported was used as survey instrument. However it is low reliability due to denial of respondents.
Clinical Survey <ul style="list-style-type: none"> Chronic Kidney Disease National Eye Survey 	P5 – Nephrology program K1M Refractive error correction	To evaluate current program being implemented
Maternal and Child Health	P2	<ul style="list-style-type: none"> To provide baseline data To identified factors associated with postnatal depression
Oral Health and Traditional and Complementary Medicine (T&CM)	P5 P4	<ul style="list-style-type: none"> To evaluate the effectiveness of the programs that has been implemented

Scopes	Level of Dissemination	Identified Gaps
		<ul style="list-style-type: none"> Recognized practice areas according to Malaysia T&CM Classification Public awareness of using T&CM practices as a complement to the allopathic medicine Specific practice premises for each categories of T&CM practices Identifying T&CM practices provide in a healthcare facility/premise

As for the future plan for the survey to be conducted under the 11th MP (2016 – 2020), the scopes would be covering maternal and child health in 2016. In 2017, the survey will cover adolescent health and communicable diseases in 2018. Meanwhile, the survey will cover healthcare demands and NCD in 2019 and nutrition status in 2020.

The selection of scope has particular criteria and undergoes selection process. The criteria for selection of scopes are:

1. Relatively high prevalence, currently or in future;
2. Focusing on diseases/disorders associated with affluence, lifestyle, environment and demographic changes;
3. Causing significant physical, mental or social disability;
4. Have important economic implications;
5. Information not available through routine monitoring system or other sources;
6. Feasibility of implementing intervention;
7. Information more appropriately obtained through a nation-wide community survey; and
8. Feasibility of obtaining information through a nation-wide community survey.



The selection process for issues to be included in the survey modules.

Cluster 2: Burden of Diseases (BOD)

Presenter: Dr. Ahmad Faudzi Yusoff, Institute for Medical Research

The next cluster, Burden of Diseases was presented by the member of the cluster, Dr. Ahmad Faudzi Yusoff from Institute for Medical Research (IMR).

The objectives of this cluster is to formulate effective policies in order to deliver better healthcare services and to identify strategic intervention program to reduce the disease burden. This cluster focuses on diagnosis and treatment and has identified 9 scopes of project:

1. Evaluation of morbidity and mortality;
2. Studies on new and re-emerging diseases;
3. Outbreak related studies;
4. Evaluation and intervention of control measures;
5. Susceptibility and resistance to diseases;
6. Aged population;
7. Drug discovery;
8. Clinical trials; and
9. Health economics.

The project status, and identified gaps for studies conducted in 2011 – 2015 was presented as follow:

Project Category	Level of Dissemination	Identified Gaps
Infectious Diseases <ul style="list-style-type: none"> • Dengue • Malaria • Filariasis • Flu • Other viruses • Medicolegal • Therapeutics 	P4 – P6	Need to continue operational research to translate into guidelines/policy/practice/ for stakeholders including BKP/ Hospitals/ Town Councils/State Health Departments/ Pest Control /Clinicians
Clinical Research/ Clinical Trials	P1 – P2	<ul style="list-style-type: none"> • Small sample size, limited resources including equipment & manpower • Expensive machine & consumables • Propose to involve Emergency Medicine, Infectious disease and Intensive Care for future study
Biochemistry	P1 – P2	<ul style="list-style-type: none"> • Unavailability of research facilities • Small patient selection due to expensive treatment • Small tissue sample
Cancer & Stem Cell Research	P1, P3, P5	<ul style="list-style-type: none"> • No animal model available in Malaysia for further study • Lack of technical expertise in generating the animal model • Lack of GMP facility to conduct clinical trial • Technology has not been tested in preclinical study elsewhere in the world • Need a multicenter study

Project Category	Level of Dissemination	Identified Gaps
		<ul style="list-style-type: none"> • No approval yet from 'Amalan"/Dasar Baru to provide this treatment to patients in government hospital
Allergy & Immunology Research	P1, P2, P6	<ul style="list-style-type: none"> • Small sample size and budget constraint • Unknown family status • Unknown patient's progression • Need animal study to investigate correlation (animal model) • Need to monitor biomarker changes with time progress

Cluster 3: Non – Communicable Diseases (NCD)

Presenter: Dr. Muhammad Fadhli Mohd Yusoff, Institute for Public Health

The third cluster, Non-Communicable Diseases (NCD) was presented by the head of the cluster, Dr. Muhammad Fadhli Mohd Yusoff from Institute for Public Health (IKU).

Dr. Muhammad Fadhli Mohd Yusoff stated that some areas are already covered in the first cluster, NHS. The cluster team has already reviewed and assess the research achievements and research gaps. The questions that remain unanswered can be translated as gaps for the 11th MP. Generally, the gaps identified for 10th MP projects are most of the study stopped at the P1 level, lack intervention study on NCD, and lack of evaluation of existing programs.

Previously, in the year of 2011 – 2015, there were 25 projects conducted and 21 of them are completed. 16 projects are at the P1 level, 3 projects at the P2 level and 1 project at P3 and P4. The main issue identified was the unavailability to develop long term intervention for NCD in our current setting.

The scopes for NCD projects in the 11th MP are:

1. Developing intervention packages for obesity, diabetes, cardiovascular & other diseases;
2. Development/ evaluation of effectiveness of promotion in healthy lifestyle and disease prevention;
3. Health literacy; and
4. Aged population.

In 2016, 12 projects has already conducted which are:

1. Identification & Characterization of Potential Oncogenes and Tumor Suppressor Genes Involved in the Pathogenesis of Oligodendroglioma and Glioblastoma Multiform Using Next Generation Sequencing Malignancy;
2. Tobacco and E-Cigarette Use Among Malaysian Adolescent 2016;
3. Prevalence, Pattern and Perception Regarding E-Cigarette and Vape Use Among Malaysian Adults;
4. A Study of the Factors Influencing Oral Health Among School Children;
5. Jom Mama Project: Pre-Pregnancy Intervention to Reduce the Risk of Diabetes and Prediabetes;
6. Perception Among e-cigarette Users and Non Users on the Use of e-Cigarette: A Qualitative Study;
7. A study on Platelet function Recovery after preoperative Aspirin discontinuation in elective CABG patients Cardiovascular disease;
8. A double blind randomized controlled trial to assess effectiveness of acupuncture as a complementary treatment among opioid dependence patients who are on Methadone Maintenance Therapy in Klang Valley, Malaysia;
9. Influences of Vitamin D Status on Clinical Biomarkers Associated with Metabolic Syndrome (MetS) among Overweight and Obese Homemakers;
10. The Effectiveness of a Value-Based Emotion-Focused Educational Program to Reduce Diabetes-Related Distress Among Adult Malay with Type 2 Diabetes in Government Clinics in Negeri Sembilan: A Cluster Randomized Controlled Trial;

11. Relationship Between Handgrip Strength and Quality of Life of Elderly Malaysian People; and
12. Lifestyle Factors Associated with Cardiovascular Risk among Healthcare Workers in Tertiary Hospitals and Medical Students in Universiti Malaysia Sarawak (UNIMAS), Sarawak, Malaysia.

Meanwhile, a total of 7 projects was planned and conducted in this year.

1. A Study On Clinical Implication Of Serial Platelet Reactivity To Antiplatelet Therapy In Acute Ischemic Stroke Patients Cardiovascular disease;
2. Tekanan: Pengaruh Personaliti Dan Strategi Daya Tindak (SDT) Dalam Kalangan Pegawai Perubatan Siswazah (Housemen Officer) Mental Health;
3. Evaluation of the Pilot Project on Enhancement of Primary Healthcare (EnPHC);
4. Population-based Study Of Prevalence Of Chronic Kidney Disease Among Adults In Malaysia;
5. The Relationship Between Body Composition, Inflammatory Mediators And Glucose Regulation Among Disease-free Overweight/Obese Women In A Community-based Study;
6. Estimating The Utility Value Of Hypoglycemia Using The Time Trade -Off (TTO) And Visual Analogue Scale (VAS) Methods Diabetes; and
7. Cross-sectional Study On Association Between The Estimation Of Insulin Resistance And Beta Cell Function Through Homeostasis Model Assessment With Hba1c Among Oral Anti-diabetics Treatment Non-responders Diabetes.

The questions and suggestions below was raised during the dialogue:

Who brought the question(s)? <ul style="list-style-type: none"> • Name • From where 	What are the question(s)? or suggestions	Who answer the question(s)? (provide feedback) <ul style="list-style-type: none"> • Name • From where 	The answer given
Dr. Alan Khoo Institute for Medical Research	As NCD is chronic, we need a system to support any long term intervention. A proper study for NCD will be a cohort study Eg: 5 years cancer mortality rate, needs 5 – 10 years of follow up.		Suggestion was noted
Dr. Faizah Medical Development Division	Since NCD cluster includes cancer, more interventional study should focus on <ul style="list-style-type: none"> i) common and rising cancers in Malaysia like colorectal cancer ii) among younger generation who are at risk of cancer or have cancer 	Dr. Tahir Aris Institute for Public Health Dr. S Asmaliza Ismail NIH Secretariat	We welcome research ideas from each program especially policy driven research. NIH secretariat will follow up with

			respective head of program/ division/ unit in which we can obtain required GAPS and other feedbacks.
Dr. Ghazali Chik Planning Division	Care bundle in NCD Programs are being developed by KKM for care bundle. Such programs needs more research in this line.	Dr. S Asmaliza Ismail NIH Secretariat Dr. Ghazali Planning Division	Care bundle is new to researcher. Researchers need person in charge to discuss further Researcher who are interested in care bundle can contact "Program Kesihatan Awam"

Cluster 4: Sustainable Environment & Climate Changes (SECC)

Presenter: Dr. Rafiza Shaharudin, Institute for Medical Research

The next cluster, Sustainable Environment & Climate Changes was presented by the head of cluster Dr. Rafiza Shaharudin from Institute for Medical Research (IMR).

The main objective for the environmental health study is to assure conditions of human health and provide healthy environments for people to live, work and play that is accomplished through risk assessment, prevention and intervention modules. These studies aim at reducing or eliminating contaminant and contagion threats to human health and to construct wellness-friendly environments at population level.

This cluster covers scopes as below:

1. To determine diseases related to exposure to various pollutants and risk factors;
2. To conduct health risk assessment;
3. To evaluate effectiveness of risk management; and
4. To assess vulnerability and burden of disease due to climate change.

There were 8 projects conducted in 10th MP and 5 of them are completed. the projects list are:

1. Research on indoor environmental quality (IEQ) for healthcare facilities in Malaysia;
2. Bukit Koman, Raub: Community health status and environmental study;
3. Estimating cancer prevalence in Perak;
4. The effect of haze & air pollution on hospital admission in the Klang Valley, Malaysia;
5. Molecular characterization of *Leptospira* spp. strain from environmental sources;
6. Formaldehyde exposure among healthcare workers and effects to health;
7. Health risk assessment of air quality and the benefits of low carbon strategies in Johor; and
8. Quantitative microbial risk assessment (QMRA) as a tool for improved drinking water quality to safeguard the health of the population and tourist of a tropical island.

In 2016, a total of 11 projects were approved.

1. Characterization of the Prevailing *Sarcocystis* Species in Environmental Samples of a Recreational Island: A Preliminary Study;
2. Chemical Constituents in e-Cigarette Liquid Solutions and Aerosols;
3. Sterile Insect Technique for Dengue Vector Control;
4. An Analysis of Ambulance Accidents in Malaysia;
5. Developing Indicators for Emergency Ambulance Services in HTAR (Hospital Tengku Ampuan Rahimah), Klang;
6. Isolation and Characterization of Pathogenic *Leptospira* from Human, Animals and Environment in Various Localities in Selangor and Wilayah Persekutuan;
7. Chikungunya Vectorial Capacity of *Aedes aegypti* and *Aedes albopictus* in Relation to Disease Transmission and Climate Change;
8. Assessing Effects of Climatic Factors on Dengue Incidence at Selected Area in Malaysia;
9. The impact and projection of flooding and sea level rise due to climate change on health care facilities in Malaysia;
10. Assessing the Health Benefits of Air Pollution Reductions Associated With Climate Change Mitigation; and

11. The Effect of Cement and Wrapping on the Decomposition Rate of the Rabbit Carcasses.

Based on the studies that have been conducted, the cluster has identified research gaps and suggested research areas based on scopes as below:

Scopes	Identified Research Gaps and Needs	Suggested Research Areas
Occupational Health <ul style="list-style-type: none"> • Diseases related to exposure to various pollutants/ risk factors • Health risk assessment • Risk management 	<ul style="list-style-type: none"> • Objective assessment for chronic stress, anxiety & depression • Risk assessment studies to quantify exposure to chemicals/radiation/ microbes and related health effects/ outcomes • Intervention studies • Burden of occupational cancers in Malaysia 	<ul style="list-style-type: none"> • Psychosocial wellbeing: Correlation of hair cortisol level and JSQ score in assessing chronic stress • Risk assessment of exposure to radiation among healthcare workers • Musculoskeletal disorders: Patient lifting aids to reduce and prevent LBP among healthcare workers • To improve reporting of occupation in cancer registry to determine burden of disease.
Environmental Health <ul style="list-style-type: none"> • Diseases related to exposure to various pollutants/ risk factors • Health risk assessment 	<ul style="list-style-type: none"> • Identification of pollutants/risk factors related to health effect • Identification of type of heavy metal related to health effect 	<ul style="list-style-type: none"> • Environmental burden of disease (e.g. air pollution) • Indoor air quality • Microbes related illnesses due to environmental disaster • Food safety – Risk assessment of food contaminated with heavy metal and effect on human health • Water quality
Climate Change <ul style="list-style-type: none"> • Assess vulnerability and burden of disease due to climate change 	Very few local studies being conducted	Projection of future burden of diseases due to impact of climate change (e.g: impact of extreme weather events, projection of food and water borne diseases, emerging or re-emerging diseases with shifts in climate pattern)

These questions and suggestions were raised during the dialogue:

Who brought the question(s)? <ul style="list-style-type: none"> • Name • From where 	What are the question(s)? or suggestions	Who answer the question(s)? (provide feedback) <ul style="list-style-type: none"> • Name • From where 	The answer given
Zairul Ain Zulkafli Engineering Services Division	Regarding the determination of EDC concentration in drinking water and health effect on consumers, Puan Ain on behalf of NEHAP secretariat asked whether EHRC had identified the places/sites for the investigations.	Dr. Rafiza Shaharudin IMR	Further research in this area will be notified to NEHAP secretariat for stakeholder interest.
Dr. Too Chung Lai IMR	Occupational health is currently more focused among healthcare workers. Is there any possibility of extrapolating OH research to the community, considering for example risk factors for NCD like silica exposure/textile dust on the community/workers is an understudied entity?	Dr. Rafiza Shaharudin IMR	Research priorities in OH are top down/policy driven initiatives by MOH for MOH staff. It will be difficult to implement at the community level/industries or outside MOH level when it comes to P4-6 level.
Dr. Khadri Shahar IMR	The study of radiation exposure in Malaysia should be expanded such as looking into the radiation exposure risks and impacts of carcinogen on DNA makeup of exposure. Due to increased disease trend by exposure to radiation, studies should be prioritized in this area.		
Dr. Azmi Abd Rahim International Health Sector, Disease Control Division	There are approximately 50 plus International Port of Entries (PMA's)-consisting airports, seaports, land port of entry/exit. Air quality assessment has not been done in Malaysia. Till date no baseline data on this. Research on the baseline air quality at the PMA's should be a priority, in accordance to IHR-WHO regulations. Other areas that can be explored into after studying the Air Quality at the ports, is to assess whether poor air quality may facilitate the transmission of communicable disease or during PHEIC	Dato' Dr. Fadzilah Kamaludin IMR	It's an obligation under IHR Regulations.

	(Public Health Emergencies of International Concern) among travelers.		
Dr. Karen Shamini Disease Control Division.	Suggested research on Psychosocial Wellbeing (mental health issues, PTSD) in relation to Disaster Management/ Preparedness.	Dr. Rafiza Shaharudin IMR	Research on psychosocial wellbeing has been studied in UKM and also UM (*Dr Marzuki Ishak in UM- looked into PTSD among the rescue and health workers in the 2014 Floods in Kuantan).

Cluster 5: Universal Access to Quality Healthcare (UAQH)

Presenter: Dr. Sondi Sararaks, Institute for Health System Research

The final cluster which are the additional cluster being added into the 11th MP is Universal Access to Quality Healthcare was presented by the head of cluster, Dr. Sondi Sararaks from Institute for Health System Research (IHSR).

The cluster covers 5 scopes which are:

1. Health financing;
2. Service delivery;
3. Governance;
4. Human resources; and
5. Information technology.

The cluster team has identified research areas for all the scopes based on three category, top priority list, primary reserve list, and secondary reserve list. The list was distributed to all participants for their input in ranking the research areas. Feedbacks from the participants will be collected at the end of the session and will be analyzed by the cluster members.

The following are the matters highlighted with regards to the UAQH cluster during the poster presentation and the dialogue sessions.

DOMAIN	ISSUES RAISED	RAISED BY
Governance	<p>Maldistribution of resources (money, man-power, assets, facilities) at macro-level, state-level, program level and between public and private providers.</p> <p>Suggest for studies on the effectiveness and necessity of posts in top management positions e.g. two or more Deputy Directors in hospitals.</p> <p>Readiness of the government/provider to become autonomous (self-governing) or decentralized, e.g. are Health District Offices ready to be self-governing?</p>	<p>Dato' Dr. Hj. Azman Hj. Abu Bakar Director Medical Development Division</p>
Health Information & Technology	<p>Less emphasis on technical IT aspects and more attention on the organisational aspects and user-related issues/views that are related to IT, e.g. patient-related knowledge. A suggestion for the IT group to re-score the priority areas with input from the top management</p> <p>Concentrate efforts on producing research output. Encourage output in the form of policy briefs, instead of research/technical reports, as they provide immediate impact on the health system.</p>	<p>Dato' Dr. Hj. Azman Hj. Abu Bakar Director Medical Development Division</p>

	<p>There are no explicit Pharmacy components mentioned in IT (and other domains in the cluster).</p> <p>Provide some update on Pharmaceutical research and looking for collaboration with other people.</p> <p>A lot of collaborations overlap.</p>	<p>Dr. Azuana Ramly Pharmaceutical Service Division</p>
	<p>The Telehealth Division has been dissolved and now fully assimilated as the E-Health unit under Planning Division.</p> <p>Keep the data interoperability and system integration issues on the top priority list.</p> <p>Please add Data Sharing policy into the research areas, either under Function or People. It has not been talked about much right now, he is foresees that this issue will escalate in the near future, and there are already "signs" pointing in that direction. On social media, the use and abuse of health information among Malaysian citizens. Need a guide on how to approach the masses in giving out information and exactly how much information the Ministry can give out.</p>	<p>Datuk Dr. Hj. Rohaizat Hj. Yon Director Planning Division</p>
<p>Health Economics</p>	<p>Analysis on healthcare benefits offered to for private sector employees</p> <p>Cost efficiency study for MOH facilities</p> <ul style="list-style-type: none"> a) Develop framework for recurrent measurement b) Identify sensitive indicators for measurement <p>Study on the Regulation of Private Sector – A Case study</p>	<p>Dr. Akmal Aida Othman National Health Financing (NHF) Unit Planning Division</p>

	<p>Financial risk protection – WHO SGD (routine study based on HIES DOSM -2x/5yr)</p> <p>Operational Readiness (OR) for public (towards autonomy) and private providers towards implementing and managing new healthcare financing mechanism</p> <p>Evaluation on the performance of VHI and PHCorp in meeting its vision, mission and objectives.</p> <p>Health system assessment</p> <p>Activity Based Costing for</p> <ul style="list-style-type: none"> a) Deliveries in Public Hospitals, (both SVD & LSCS) <ul style="list-style-type: none"> •Include instrumental deliveries •Procedures such as episiotomy and tear repair •Different painkillers, Entonox, pethidine, epidural •24 hours post-delivery case (if need hospitalization) b) Bundle Care under EnPHC <p>Evaluation of EnPHC demonstration project;</p> <ul style="list-style-type: none"> a) Population based survey b) Process evaluation c) Evaluation on public health clinics 	
--	--	--

Health Economics	<p>How to ask for a grant. Suggest to have another dialogue for further discussion on funding.</p> <p>Comments: They will find way to support If proposal go thru proper process.</p> <p>For 2018, research more relevant to universal. Suggest discuss early & this research must be done in 2018</p>	<p>Dr. Azuana Ramly Pharmaceutical Service Division</p> <p>Dr S Asmaliza Ismail Director NIH secretariat</p>
	<p>Health Insurance Packages - Whether we able to get list research conducted</p>	<p>Datuk Dr. Hj. Rohaizat Hj. Yon Director Planning Division</p>

<p>Human Resource</p>	<p>Is there really a difference in service delivery/ knowledge in nurses with diploma and degree taking into account costing factors to have all nurses as degree holders</p> <p>Setting up Multi-Disciplinary Teams in hospitals to increase efficiency of existing hospitals.</p> <p>Make hospital OTs run 24 hours to cut down waiting time. Day care OT (follow examples from western countries).</p> <p>Can we run without building more hospitals but increase efficiency of existing hospitals?</p> <p>Why are patients still not following staggered hospital appointment timings?</p> <p>Why out-patient clinics are still congested with long waiting times?</p>	<p>Dato' Dr. Hj. Azman Hj. Abu Bakar Director Medical Development Division</p>
------------------------------	--	--

Human Resource	<p>Research needed for planning, decision making & for future direction.</p> <p>There will be other micro research by other divisions</p> <p>Identify future projections of HR in health care: Doctors and Pharmacists</p> <p>Is there really going to be an excess or shortage in the near future?</p> <p>How employment by contract is going to affect the projection?</p> <p>What is the capacity of the government to ensure quality and quantity of trained personnel?</p> <p>Are HOs becoming Capable / quality MOs?</p> <p>There is an excess of HO/MO by 80% now. Why is there still long waiting time in clinics?</p> <p>Need to have proper data sharing. Integrated data with financial division in order to make decision for policies.</p>	<p>Datuk Dr. Hj. Rohaizat Hj. Yon Director Planning Division</p>
Service Delivery	<p>“Do more with less (resources)”</p> <p>No public empowerment</p>	<p>Dato' Dr. Hj. Azman Hj. Abu Bakar Director Medical Development Division</p>

	<p>Our health promotion efforts are not working</p> <p>We need to look at how we can work across sectors, currently everybody is still working in silos</p> <p>Person-Centered Care (PCC) – In the west, family & carers take care of patients, here it is more rigid whereby family and carers can only care for the patients in wards during visiting hours only. Suggest to pilot a project where carers are allowed to be involved in the management of patients, take part in nursing for patients</p> <p>Efficiency - need to look at how we can minimise postponement of healthcare delivery, emulate countries such as New Zealand, where there is no postponement of operations/surgeries. Postponement like this only waste time and money, patient is already prepared for op at 6.30am but surgeon only comes in later at 9.00am.</p> <p>Currently data shows that all the indicators are met, but cost is still increasing, complaints and negligence are on the rise and we face these issues:</p> <ol style="list-style-type: none">1. No benchmarking2. Hospital directors do not look at our research evidence.3. Stakeholder dialogues should be held quarterly and not just annually.4. FPP – need to look at whether the healthcare providers are providing the best care.5. Improvement in service delivery in pink cluster.	
--	---	--

Service Delivery	For NHMS 2017 and future Malaysia plans, need to highlight pre-school children & adult survey. Empowering of patient how to manage medicine in quality of medicine.	Dr. Natifah Che Salleh Oral Health Division
	<p>Identify who are the stakeholders for each project and follow up by email</p> <p>Comments: Researcher must identify stakeholder to use research funding.</p> <p>Should be included part of a research team.</p>	<p>Dr. Ghazali Chik Planning Division</p> <p>Dr S Asmaliza Ismail Director NIH secretariat</p>

<p>Others (Unsure of which domain this belongs to, for group leaders to identify)</p>	<p>Scope of national health surveys to be extended to pharmaceutical services e.g. drug utilisation in the public and private sectors</p> <p>Highlight a new area in NCD - the Care Bundle concept, especially within the primary care setting, Program Kesihatan Awam (BPKK)</p> <p>Comments: – OK if comply with criteria</p> <p>– possibly in RMK12</p>	<p>Dr. Azuana Ramly Pharmaceutical Service Division</p> <p>Dr. Ghazali Chik Planning Division</p> <p>Dr. Noor Ani Ahmad Institute for Public Health</p> <p>Dr Tahir B Aris Director Institute for Public Health</p>
--	---	---

Conclusion

The participants gave their impression of what the dialogue had accomplished. Dr. Ghazali Chik from Planning Division suggested to the researchers to always include key stakeholders in conducting policy guided research.

Collaboration between stakeholders and researchers is important to strengthen research areas. As mentioned by Dr. Nooral Zeila, MHSR study was an example of collaboration between the stakeholders and researchers that focuses on service delivery, customer protections and others.

Next, the Director of Planning Division stated that the clusters has covered micro and macro aspects of research planning and future direction. He suggested that for the future dialogue, each clusters can list their research projects and present any alarming key findings. There are several areas need to be covered in research such as the management of human resource in term of distribution, to identify the factors associated with poor quality of healthcare, poor access to healthcare and how to improve them. In this current situation, study on the abuse of media social and data sharing is also important.

Lastly, Dr. S Asmaliza Ismail informed the participants that the NIH Secretariat will write to each program to collect any additional information. This will be a good start for the researchers and stakeholders to communicate with each other. The dialogue ended at 1:00 pm.

Appendix A

Organizing Committee

NIH Secretariat

Dr. S Asmaliza Ismail, Director
Roslinda Abu Sopian
Mohd Idris Omar
Nurul Syarbani Eliana Musa
Sharifah Zawani Syed Ahmad Yunus
Mohd Nazrul Ahmad
Khairul Azhar Iskander Mirza
Mohd Hadziq Mohd Zafari
Mohd Azranshah Hassan

Institute for Medical Research

Dr. Badrul Amini Abd Rashid

Institute for Health System Research

Dr. Fun Weng Hong
Mohammad Rizal Mohamad Rodzi
Kelly Ngit Khang

Presenters

Dr. Noor Ani binti Ahmad, Institute for Public Health
Dr. Ahmad Faudzi Yusoff, Institute for Medical Research
Dr. Muhammad Fadhli bin Mohd Yusoff, Institute for Public Health
Dr. Rafiza Shaharudin, Institute for Medical Research
Dr. Sondi Sararak, Institute for Health System Research

Rapporteurs

Dr. Maisarah Omar, Institute for Public Health
Dr. Nur Liana Ab Majid, Institute for Public Health
Dr. Thamil Arasu, Institute for Public Health
Dr. Juanita Halili, Institute for Health System Research
Matron Kong Yuke Lin, Institute for Health System Research
Dr. Tharmarajah Nagalingam, Institute for Medical Research

Sumarni Mohamad Ghazali, Institute for Medical Research
Dr. Bala Murali Sundram, Institute for Medical Research
Dr. Nurul Izzah Ahmad, Institute for Medical Research

Appendix B

List of Participants

Institute for Medical Research

Dato' Dr. Fadzilah Kamaludin
Dr. Masita Arip
Dr. Adiratna Mat Ripen
Dr. Noormalin Abdullah
Dr. Too Chun Lai
Dr. Alan Khoo Soo Beng
Dr. Lim Moon Nian
Dr. Lan Shin Hin
Azli Ismail
Dr. Nur Suffia Sulaiman
Norhayati Mustafa
Dr. Fazliana Mansor
Dr. Siti Hafizah Zulkipli
Dr. Mohd Iqbal Mazeli
Dr. Mohd Ridzuan Mohd Abd Razak
Terence Tan Yew Chin
Mohd Isa Wasiman
Dr. Norazah Ahmad
Dr. Raden Shamilah Radin Hisam
Dr. Noor Azian Md Yusof
Dr. Ravindran Thayan
Dr. Rozainanee Md Zain
Dr. Rahizan Issa
Dr. Mohd Fuat Abd Razak
Dr. Rohani Ahmad
Dr. Mohd Khadri Shahar
Dr. Dyg Pertiwi Abg Kamaludin
Dr. Salina Abd Rahman
Dr. Izyan Mohd Idris
Mohd Khairul Nizam Mohd Khalid
Dr. Mohd Fuat
Dr. Anasufiza Habib

Institute for Public Health

Dr. Tahir Aris
Dr. Fazila Haryati Ahmad
Dr. Nor Asiah Mohamad

Clinical Research Center

Fauziah Che Mustafa
Dr. Lee Keng Yec
Dr. Ang Swee Hung

Institute for Health Management

Dr. Nor Izzah Ahmad Shauki
Datin Dr. Noriah Bidin
Dr. Nor Filzatun Borhan
Dr. Norhaniza Zakaria
Dr. Sunita a/p S. Shanmugan
Dr. Hairusnizan Hamzah
Dr. Norhidayah Mat Diah
Dr. Pangie Bakit
Dr. Munirah ismail
Dr. Nik Nur Eliza Mohamed
Dr. Muhammad Nur Amir Abdul Rassip
Dr. Nik Dewi Delina Nik Mohd Kamil
Dr. Ng Rui Jie
Dr. Saravanan a/l S.R Sundaramurthy
Nursyahda Zakaria
Hafidza Baharum
Dr. Ili Liyana Khairul Anuar
Minson Majimbun

Institute for Health System Research

Datin Dr. Siti Haniza Mahmud
Dr. Zalilah Abdullah
Dr. Ainul Nadziha Hanafiah
Dr. Juanita Halili
Dr. Mohd Lutfi Fadil

Dr. Nur Amalina Zaimi
Dr. Mohd Ridzwan Shahari
Nurul Salwana Abu Bakar
Dr. Zulkarnain Abd Karim
Norazlin Muharam
Dr. Sudharshana Mahaletchumy
Dr. Fathullah Iqbal Ab Rahim
Dr. Tan Ee Hong
Dr. Shakirah Md. Shariff
Matron Kong Yuke Lin
Dr. Diane Chong Woei Quan
Samsiah Awang
Zaiton Kamaruddin

Institute for Health Behavioral Research

Muhammad Zabri Johari

Planning Division

Datuk Dr. Hj. Rohaizat Hj Yon
Dr. Premila Devi a/p Jeganathan
Dr Fairuzaman Jaafar
Dr. Sam Pradeep Thillakkannu
Dr. Mahani Ahmad Hamidy
Dr. Jasmin Ariff
Dr. Tanty Darwina Abdul Rahman
Dr. Najwa Misdan
Dr. Akmal Aida Othman
Datin Paduka Dr. Nooral Zeila Junid
Dr. Ghazali Chik
Dr. Rima Marhayu Abdul Rashid
Dr. Muhammad Anis Abdul Wahab
Dr. Nur Syahira Mohd Shahib
Izzanie M. Razif
Sabrina Sabri
Rohana Shaari

Allied Health Science Division

Hafizah Abdul Khana

Medical Development Division

Dato' Dr Hj. Azman bin Hj. Abu Bakar

Dr. Selamah bt Othman

Dr. Mohd Faizal Zainuddin

Kamarul Azhar Kamaruddin

Dr. Erni Zurina Romli

Lee Sit Wai

Dr. Erlendawati

Dr. Junainah Sabirin

Dr. Amin Sah Ahmad

Dr Zuriyati Zakaria

Dr. Mahaddeh Ghazali

Ros Aziah Mohd Rashid

Dr. Syaharatul Patimah Kamarudin

Dr Nur Farhanah Mohamad

Dr Patimah Amin

Dr. Noor Aziah bt Zainal Abidin

Dr. Muhamad Aadiyat Abd Hamid

Dr. Faizah Zin

Dr. Tengku intan Norleen

Dr. Fuad Ridha Mahabat

Dr. Adibah Hani Harun

Dr. Siti Zubaidah Ahmad Subki

Dr. Norhafizah Mohd Noor

Dr. Mohd Syazmin Zuwairy

Dr. Devaraj Salam

Dr Fairoz Azlin Muslim

Dr. Jafanita Jamaludin

Dr. Adilah A. Bakar

Maria Ja'afar

Dr. Laili Murni Mokhtar

Dr. Nur Ain Rahim

Dr. Roza Sarimin

Dr. Ahmad Muzammil Abu Bakar

Maharita Ab. Rahman

Ku Norhasni Ku Abd Rahim

Disease Control Division

Dr. Ahamad Jusoh

Viola Michael

Dr. Azmi Abdul Rahim

Dr. Syed Sharizman Syed Abdul Rahim

Dr. Karen Shamini

Fatimah Azzahroh Ahmad Hafad

Azman Mohamed

Dr. Balvinder Singh Gill

Family Health Development Division

Dr. Hjh. Hayati Mohd Radzi

Dr. Aizuniza Abdullah

Dr. Kavitha Agamutu

Dr. Chandramalar a/p Kanthavelu

Dr. Nik Rubiah Nik Abdul Rashid

Nor Zamberi Mohd Khan

Abdul Rahim Mohd Zaki

Dr. Nurhayati Mardiah Manut

Thillainathan a/l Krishnan

Medical Practice Division

Dr. Fadzlinde Shaharuddin

Dr. Nurul Nadia Kamarul Nizam

Dr. Mohamed Faruqi Uzair Mohamed Sidek

Dr. Mohd Halmi Mohd Zin

Traditional & Complementary Medicine Division

Teh Li Yin

Chun Yau Li

Dr. Adilla Nur Halim

Nutrition Department

Norlida Zulkafly
Khairul Zarina Mohd Yusop

Oral Health Division

Dr. Natifah Che Salleh
Dr. Nurul Ashikin Abdullah

Public Health Development Division

Dr. Aniza Abdul Rashid

Engineering Services Department

Zairul Ain Zulkafli
Nurul Ashikin Asari

Pharmaceutical Service Division

Dr. Azuana Ramli
Chan Pui Lim
Nor Hafizah Md Hamzah

Report prepared by:
NIH Secretariat, Ministry of Health
2017