

**INSTITUTE FOR PUBLIC HEALTH
STRATEGIC PLAN
2021-2030**





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LIST OF ABBREVIATIONS

AVICASI	Audio-Video Computed-Assisted Self Interview
CAPI	Computer-Assisted Personal Interview
CATI	Computer-Assisted Telephone Interview
CDC	Centers for Disease Control and Prevention
CPD	Continuing Professional Development
DOSM	Department of Statistics Malaysia
DG	Director General
EPU	Economic Planning Unit
FAO	Food and Agriculture Organization
FCTC	Framework Convention on Tobacco Control
GATS	Global Adults Tobacco Surveys
HCD	Healthcare Demand
HIV	human immunodeficiency virus
ICT	information and communications technology
IDD	Iodine Deficiency Disorders
IF	Impact Factor
IPH	Institute for Public Health
JPPCRC	Jawatankuasa Penilaian Penyelidikan Clinical Research Center
JPPNIH	Jawatankuasa Penilaian Penyelidikan National Institutes of Health
KPI	Key Performance Indicator
MCH	Maternal and Child Health
MOAF	Ministry of Agriculture and Forests
MOF	Ministry of Finance
MOH	Ministry of Health Malaysia
MOHA	Ministry of Home Affairs
MREC	Medical Research and Ethics Committee
MyCOSS	Malaysian Community Salt Study
NCD	Non-Communicable Diseases
NGO	Non-Governmental Organisation
NHMS	National Health and Morbidity
NIH	National Institutes of Health
OCR	Optical Character Recognition
OMR	Optical Mark Recognition
SAQ	self-administered questionnaires (SAQ)
SCS	Survey Creation System
SRC	Survey Research Centre
STI	sexually transmitted infections
SWOT	strengths, weaknesses, opportunities, and threats
TOT	Training Of Trainers
TWG	technical working group
UN	United Nation
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

INTRODUCTION

1. INTRODUCTION

1.1 BACKGROUND

The origins of our Institute stemmed from a visit from a World Health Organization (WHO) advisor in 1962, who recommended the establishment of an institution for public health. By the end of 1965, an eight-story tower block for the public health institute was completed in Bangsar. In 1966, the Public Health Nursing school, originally situated at Penang and Public Health Inspector Training school, originally located at Jalan Young (now Jalan Cenderasari), Kuala Lumpur were moved to this new building which was then called Maktab Kesihatan Umum (College of Public Health). Maktab Kesihatan Umum was officially opened by the Minister of Health Malaysia in July 1967.

In early 1970, Maktab Kesihatan Umum was renamed Institut Kesihatan Umum (Institute for Public Health, IPH), reflecting its growth and maturity in the public health program. Public health research projects started in 1969, focusing mainly on Infectious Diseases and the health system. The first National Health Morbidity Survey was initiated in 1986. During this era, IPH assumed a dual function in public health training as well as in research implementation.

Since the establishment of the National Institutes of Health (NIH) with IPH as one of its research institutes in the year 2005, IPH had changed its main role from supporting public health training to a research institute. IPH has conducted a series of population-based National Health and Morbidity (NHMS) surveys since 1986, and the latest survey was conducted in the year 2020. Until now, IPH had conducted six (6) cycles of NHMS wherein the first 3 NHMS was conducted every

10 years and then every four (4) years since 2011, with different target populations and scopes each year. Other than NHMS, IPH also conducted other national surveys such as Iodine Deficiency Disorders (IDD) Survey, Malaysian Community Salt Study (MyCoSS) and many more.

These surveys, especially the NHMS series, have been instrumental in providing health-related population-based data and information to assist the Ministry of Health Malaysia in evaluating its health priorities, program strategies, activities and planning its allocation of resources. The surveys covered a wide range of scopes such as non-communicable diseases & risk factors, health care demand, adolescent health, elderly health, nutrition, maternal & child health and other scopes.

Other than surveys, IPH has also conducted public health-related studies, including Burden of Disease studies. In addition, IPH is also involved in numerous collaborative studies, both locally and internationally in areas related to public health such as Global Adults Tobacco Surveys (GATS) and Global School-based Students Health Survey with WHO and CDC. IPH also provides consultancy services to various local agencies such as the Ministry of Women, Family and Community Development in sexual reproductive health-related studies and the Ministry of Education together with international organizations such as UNICEF on the Disability Study and Violence against Children Desk Review.

EVOLUTION OF IPH

Figure 1: Milestones in training evolution

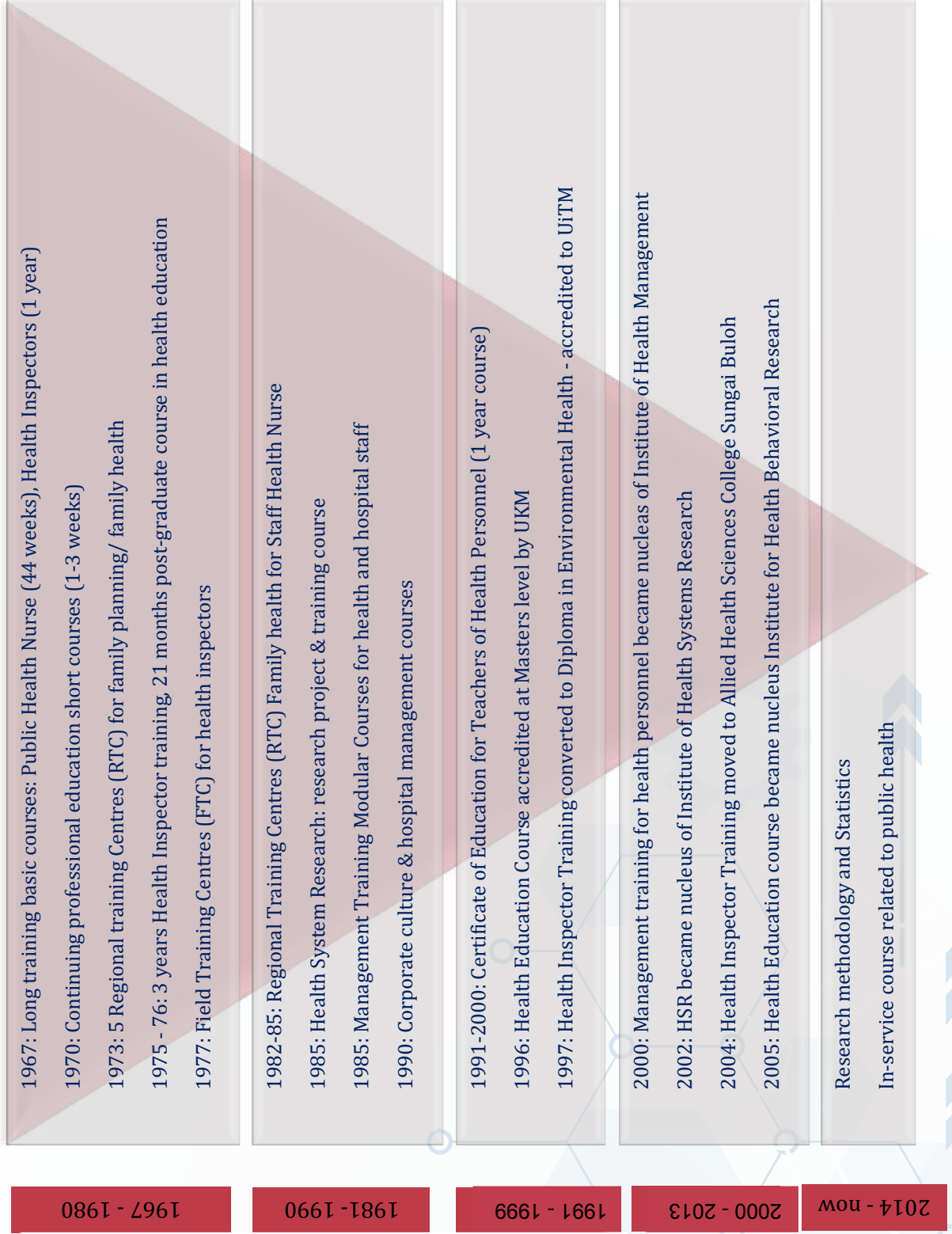


Figure 2: Milestones in research evolution



1.2 VISION STATEMENT OF IPH

To be a leading health research organisation in epidemiological and population-based survey

1.3 MISSION STATEMENT OF IPH

To support evidence-based policy making through high quality epidemiological research and population-based surveys for the health of the nation

Values

- Creative and innovative
- Knowledgeable
- Competent
- Resilient
- Integrity

1.4 PURPOSE OF THIS STRATEGIC PLAN

This document is based on the evaluation of the achievements of IPH in the past 10 years and also through feedback from various stakeholders to develop a strategic and comprehensive plan towards achieving the vision and mission of IPH for the next 10 years (2021-2030). Our document is in line with the NIH Strategic Plan 2021-2025 (draft), the Research and Technical Support (R&TS) Programme Strategic Plan (2021 – 2025) and the MOH Strategic Plan 2021-2025. This document will also become a guide for both internal and external clients and our stakeholders.

1.5 ORGANISATIONAL STRUCTURE

IPH has seven centres focusing on the implementation of research projects to provide evidence for evidence-based policymaking by our stakeholders. The seven centres mirror the organisational structure of the Public Health Division, Ministry of Health Malaysia (MOH) to a certain extent.

1. Centre for Family Health Research
2. Centre for Non-Communicable Disease Research
3. Centre for Burden of Disease Research
4. Centre for Communicable Disease Epidemiology Research
5. Centre for Nutrition Epidemiology Research
6. Centre for Occupational Health Research
7. Survey Research Centre

The Survey Research Centre (SRC) plays an important role in supporting the implementation of research by the institute. The SRC provides support in coordinating project management of the nationwide surveys, data collection and data management. The SRC is responsible for the upkeep and maintenance of various facilities in IPH, including research-related software/applications such as manual data entry rooms, OMR/OCR scanning facility, Computer-Assisted Telephone Interview (CATI) room, and Computer-Assisted Personal Interview (CAPI) devices which includes web-based applications to support public health research in IPH.

Currently, IPH has a total of 91 posts; 66 Professional posts, eight (8) Support 1 category posts and 17 Support 2 category posts. There are five (5) Public Health Medicine Specialist posts, one (1) Nutritionist/Dietician Grade 54 post and one (1) Medical Officer/Research Officer post as Head of Centre. A detailed Organisational Chart is presented in Figure 3.

1.6 MAIN FUNCTIONS OF THE INSTITUTE FOR PUBLIC HEALTH:

- To conduct research in the priority areas of Family Health, Non-communicable Diseases, Communicable Diseases, Nutrition, Occupational Health and Burden of Disease.
- To provide evidence to support national policies, strategies and plan of actions to MOH and other relevant agencies.
- To translate research into practice by providing evidence-based findings for policymaking and provision of health services.
- To disseminate research findings to policymakers and stakeholders, nationally and globally.
- To provide technical input for training related to the centres
- To provide consultancy services in relevant areas
- To develop smart partnerships, networking and collaboration with related agencies, locally and globally.

1.7 CLIENTS & STAKEHOLDERS

CLIENTS:

Internal	External
NIH	Economic Planning Unit (EPU)
Public Health Program	Department of Statistics Malaysia (DOSM)
Medical Program	Ministry of Education
Oral Health Program	Ministry of Women, Family and Community Development
Pharmaceutical Service	Ministry of Agriculture and Forests (MOAF)
	Ministry of Home Affairs (MOHA)
Food Safety and Quality Division	Ministry of Youth and Sports
Planning Division	International Organization (UN, WHO, UNICEF, UNDP, FAO)
	NGO
	Universities
	Industries
	Public/Community

STAKEHOLDERS:

- Programme managers from the MOH
- National Health Institutes (NIH)
- Economic Planning Unit (EPU)
- Ministry of Finance (MOF)
- United Nation/World Health Organisation



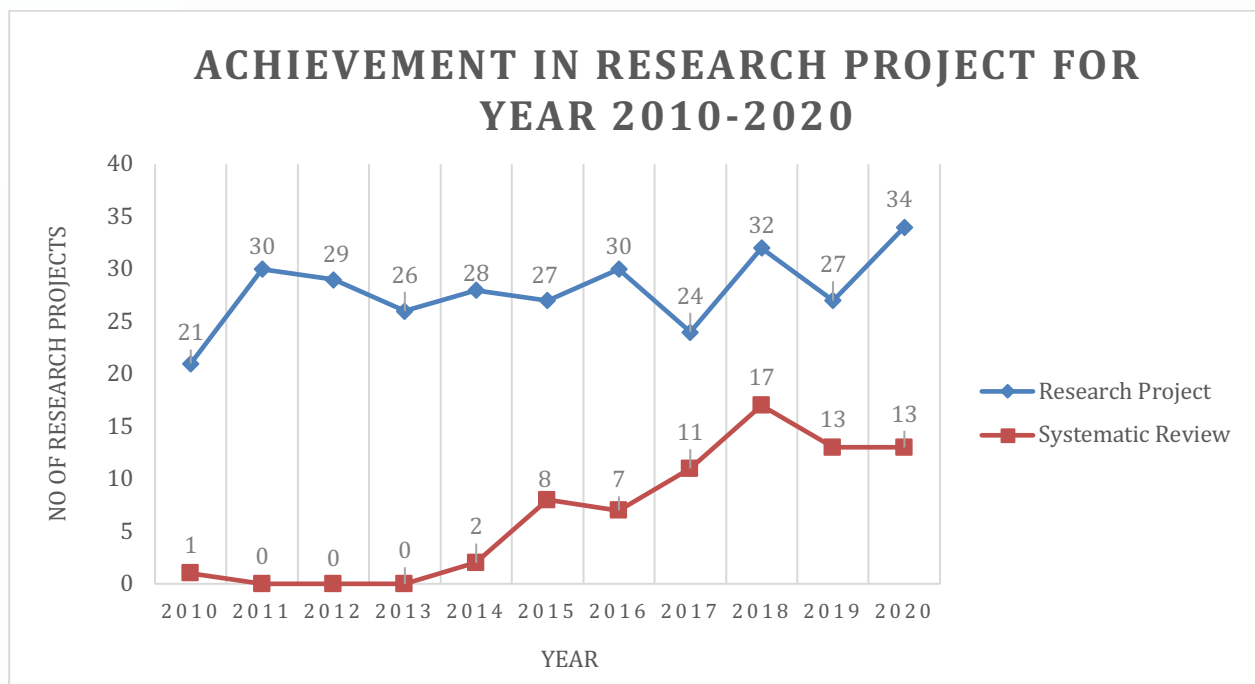
ACHIEVEMENTS

2.1 ACHIEVEMENTS (2010 - 2020)

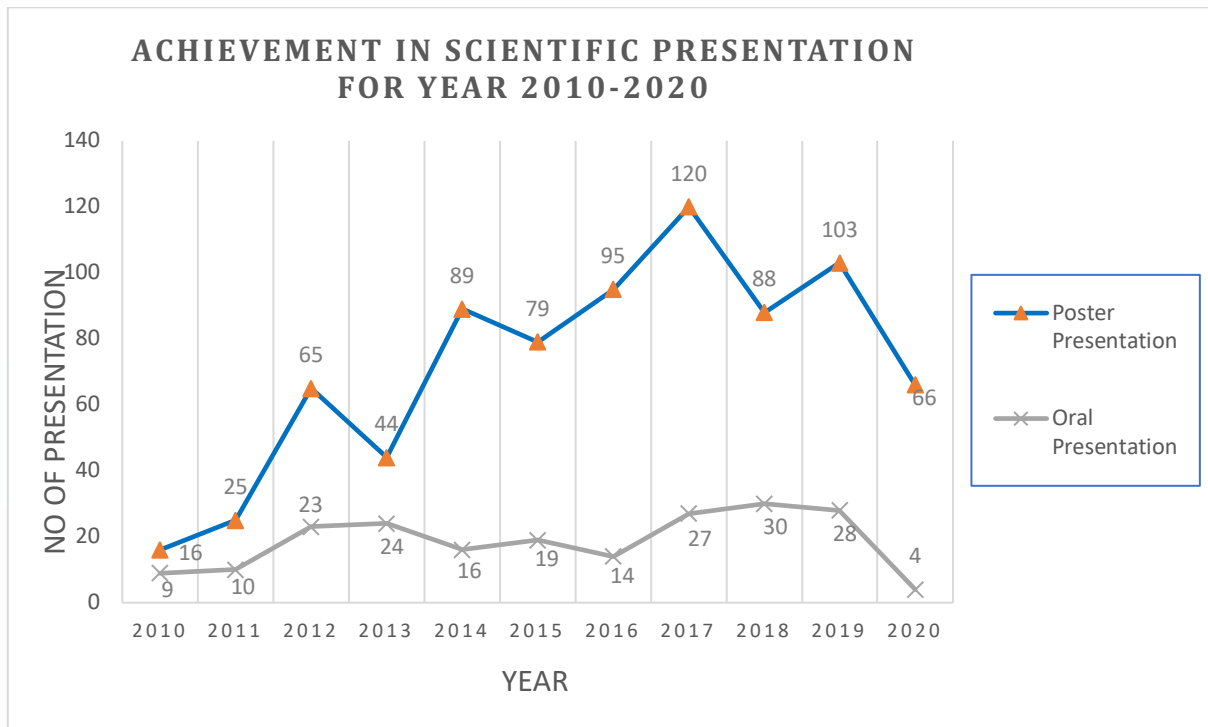
IPH has made significant contributions to the public health sector in the country. Its achievements are categorised into:

- Research project
- Journal publication and scientific presentation (International publications)
- Presentation to Stakeholder/ Technical Report/ Infographic/ Research Highlight/ Fact Sheet/ Abstract in Supplement/ Policy Brief
- Consultation/ Technical Support/ Lecture

2.2 Research Project



Based on the number of projects conducted from 2015 to 2020, IPH has consistently exceeded the target of 20 research projects annually and has also been able to achieve more than 10 systematic or scoping reviews per year as targeted since 2017. The research projects consist of two components; primary research lead by IPH’s officer as principal investigator and collaborative research with other agencies.

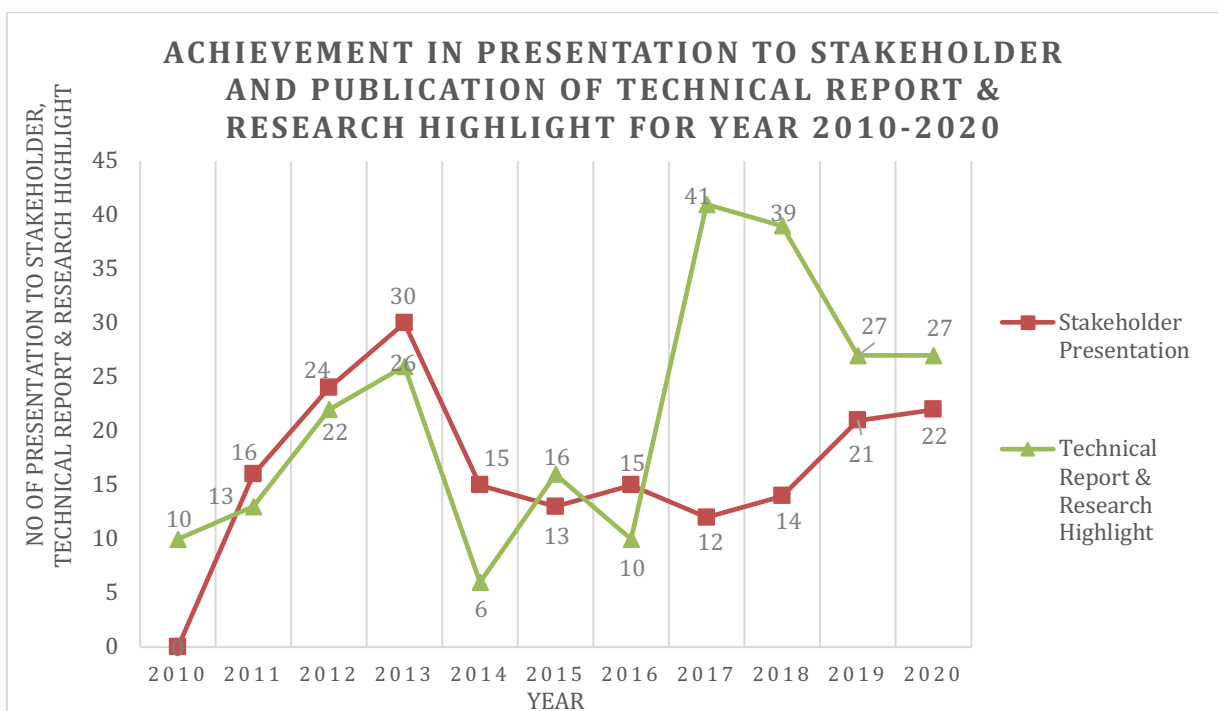


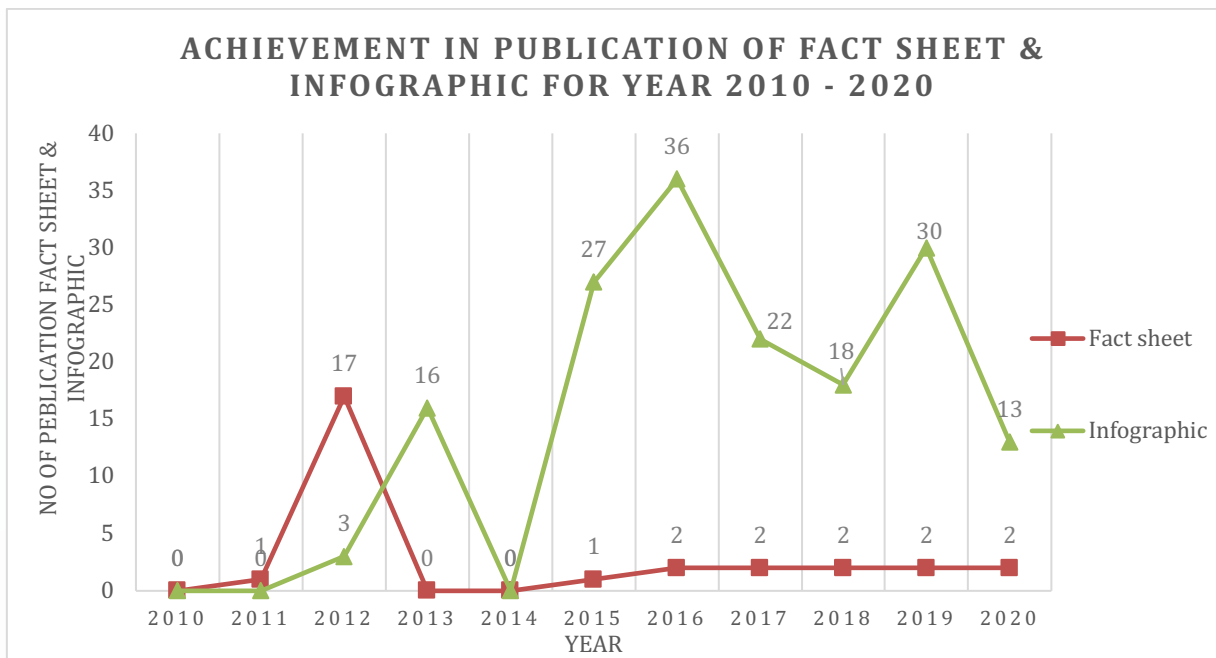
Scientific presentations include both oral and poster presentations at conferences. There was an overall increasing trend in the number of scientific presentations made (both oral and poster), mostly at scientific conferences. In addition, IPH officers have consistently secured a collective minimum of three best poster or best paper awards every year. However, there were noticeably less presentations made in 2020 as the COVID-19 pandemic caused many conferences to be either cancelled or postponed to a later date.

2.4 Presentation to Stakeholder/ Technical Report/ Infographic/ Research Highlight/ Fact Sheet/ Abstract in Supplement/ Policy Briefs

IPH routinely disseminates its research findings to stakeholders through a wide range of output material such as technical reports, infographics, research highlights, fact sheets or policy briefs. IPH has consistently been able to exceed its KPI target of 39 publications annually (2018-2020). This KPI has been revised to 30 publications annually from the year 2021 onwards.

Dissemination of research findings to various stakeholders within MOH and also to other agencies were conducted during technical meetings, technical working group (TWG) meetings or during other relevant events. IPH also disseminated research findings in the form of fact sheets and infographics. These two types of research outputs were simplified for various groups of relevant stakeholders with salient points highlighted accordingly.

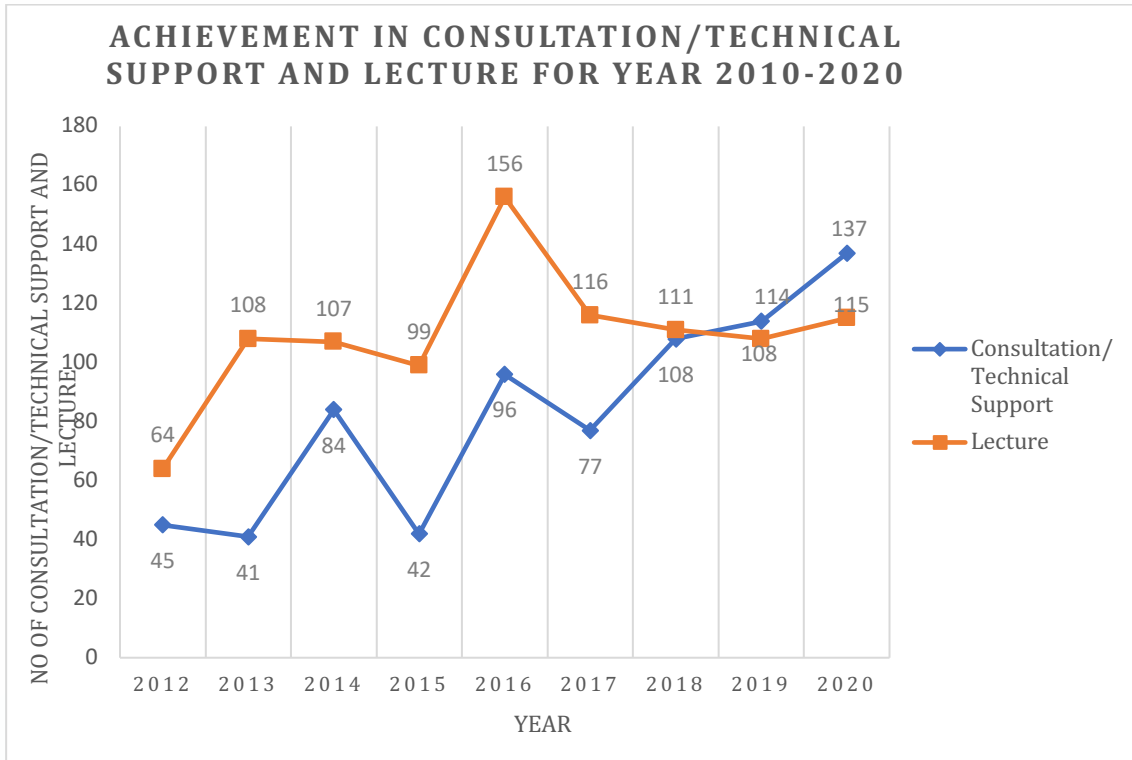




2.5 Consultation/ Technical Support/ Lecture

Experts in IPH were recognized by various agencies locally and internationally. There was a steady increase in the number of consultation and technical support sessions provided both locally and internationally from the year 2012 to 2020. Consultations refer to manuscript reviews for journals, MOH and other related agencies. IPH provides technical support in the form of its officers' roles as the TWG members in related projects/ agencies or providing input on research methodologies for research projects with other agencies.

There was also an increase in the number of lectures on various aspects of public health and research-related topics given by IPH's officers. On average, 100 lectures have been delivered by IPH's technical staff since 2013.



ISSUES & CHALLENGES

3.1 ISSUES AND CHALLENGES

Issues and challenges were identified through brainstorming sessions among IPH staff and compilation of feedback from pre-identified relevant stakeholders, who were invited by email to provide their opinions via an online survey on Google Forms. The responses were compiled and summarised to provide input for the situational analysis. A total of thirty-two (32) invitations to fill out the Google Form were sent to the identified stakeholders as summarised in Table 1 below:

Table 1: List of stakeholders invited to complete an online survey on the potential issues and challenges faced by IPH

Position	Division/Sector/Unit
Directors	<ul style="list-style-type: none"> • Disease Control Division • Family Health Development Division • Pharmaceutical Services Division • Planning Division • Food Safety and Quality Programmes Division • Public Health Development Division, Traditional & Complementary Medicine • Nutrition Division • Medical Development Division • Health Education Division • Oral Health Programme Division • Nursing
Deputy Directors & Head of Sectors/ Head of Units	<ul style="list-style-type: none"> • Disease Control Division <ul style="list-style-type: none"> ➢ Non-Communicable Diseases Sector ➢ Disease Surveillance Sector ➢ HIV, STI & Hepatitis C Sector ➢ Tuberculosis & Leprosy Sector ➢ Tobacco Control and FCTC Sector ➢ Mental Health, Preventive Injury, Violence and Substance Abuse Sector • Family Health Development Division <ul style="list-style-type: none"> ➢ Family Health section ➢ Primary Care section • Medical Development Division

Twenty-four (24) responses out of thirty-two (32) (80% response rate) were received detailing overall suggestions for IPH; of these, thirteen (13) responses suggested revising the implementation of community-based surveys. The proportion of responses received from the Divisions are as below (Figure 4).

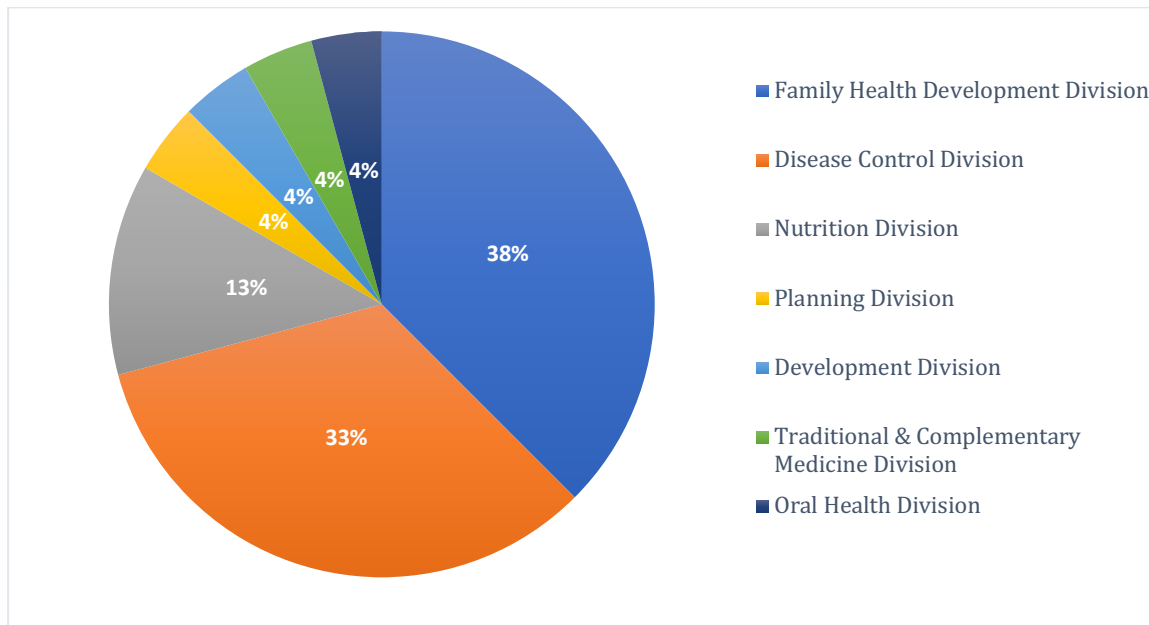


Figure 4: Proportion of responses received from the various Divisions within MOH

Based on the above exercises, a situational analysis was conducted using the SWOT framework as outlined below:

3.2 STRENGTHS

- Competent in the implementation of an epidemiological survey—has expertise and vast experience in research methodology of national and community population-based surveys.
- Well-known for conducting national health surveys over the past 30 years.
- The only research institute which provides national-level data on the burden of diseases.
- Multidisciplinary expertise of public health researchers (such as Medical Officers, Research Officers & Allied Health Professionals).
- The organisational structure of IPH mirrors the structure of the Public Health Division in the MOH to a certain extent.

- IPH website as a platform to promote IPH's expertise to foster networking and collaboration opportunities.
- IPH officers-as members of the Technical Working Group (TWG) under the Public Health program-have the leverage to translate research findings into policies and practices.

Utilisation of the latest technology for research implementation:

- Has an in-house Survey Creation System (SCS) that allows for easy customisation and deployment of survey questionnaires onto data collection instruments i.e., mobile tablets.
- SCS functions are easy to learn, even for beginners.
- In-house server for data storage, with the option of converting to cloud-based storage.
- Plans are currently underway to upgrade the SCS in order to enhance its functions, ensure cross-platform compatibility, and expand its user base to other institutes or parties.

3.3 WEAKNESSES

- Require more experts related to certain research areas or niche areas
- High turnover of staff which may affect staffs' commitment and motivation to stay in the organisation.

Survey Creation System (SCS):

- The current system still has some limitations in its functions.
- Limited information and communications technology (ICT) personnel who are skilled in system development and competent in programming.
- The server is prone to security breaches and malicious attacks such as hacking.

3.4 OPPORTUNITIES

- The existence of NIH creates opportunities for collaboration with other institutes to encourage more comprehensive and holistic research projects.
- The establishment of the Biostatistics & Data Repository within NIH, staffed by experienced statisticians, provides a convenient support centre for statistical consultations and support.
- The establishment of the Public Health Research Circle under the Public Health Development section in each state may facilitate coordination and implementation of public health research.
- Several domestic & international parties have expressed interest to collaborate with IPH in public health-related studies.
- IPH officers have the opportunities to acquire more knowledge to enhance their skills through in-service training (LDP – Latihan Dalam Perkhidmatan) and Continuing Professional Development (CPD).

3.5 THREATS

- Unclear career pathway for researchers among allied health professionals.
- Lack of authority in the selection of candidates to join IPH.
- Data handling issues that hinder potential collaborative research with international agencies.

3.6 SUMMARY

Public health is a multi-faceted, interdisciplinary field, and it is pertinent that the Institute of Public Health is staffed with experts in a diverse range of research areas. Going forward, the goal for IPH is to build further capacity for providing training in various types of research areas in public health, particularly research in communicable and non-communicable diseases, family health, nutrition, occupational health and burden of diseases. More

opportunities should be provided for IPH's researchers to undergo training at an international level.

There is concern that the high turnover of staff may affect the organisation resulting in failure to retain expertise in important areas due to unclear career pathways for researchers, especially for allied health professionals. IPH also lacks a say in the selection of candidates joining IPH, primarily due to existing human resource systems and processes within the MOH. Endeavours to increase retention of talent and expertise should include the creation of flexible posts for allied health professionals and provide better career pathways that are more attractive and competitive with other agencies.

The use of technology in conducting research needs to be upgraded with the latest technological features and specs in order to enhance and expand survey capabilities and facilitate data management in research. Concerns were also raised with regard to the lack of ICT personnel and security vulnerabilities of the system. The institute needs sufficient personnel who are well-qualified to handle tech-related matters and aspects of research projects.



STRATEGIC PLAN

4.1 Strategic Plan

Based on the achievements, issues and challenges identified in previous sections, IPH has identified three (3) main goals as part of its strategic plan:

1. **Enhance high impact research**
2. **Strengthen capacity building**
3. **Intensify consultation and technical support**

In order to achieve these outcomes, there are six (6) strategies with related KPI's formulated as below:

1. **Conduct policy driven public health research**
2. **Adoption of technology in conducting research**
3. **Active research translation and dissemination**
4. **Nurturing capacity and professional development**
5. **Training as a platform for knowledge transfer**
6. **Provide consultation and technical support**

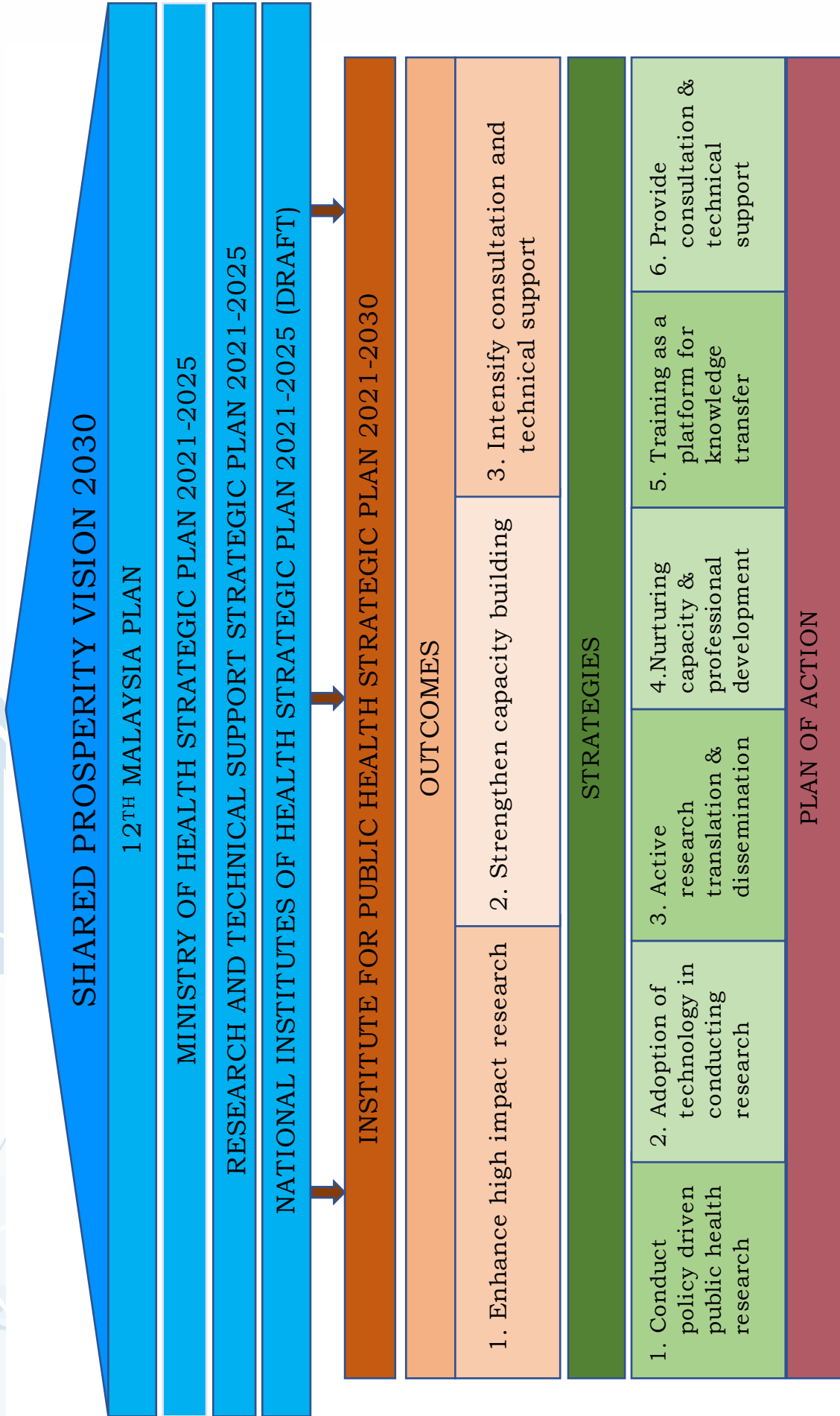


Figure 5: IPH Strategic Plan 2021-2030

4.2 OUTCOME

OUTCOME 1: ENHANCE HIGH IMPACT RESEARCH

NO.	INDICATOR	TARGET										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
1.	Number of health policy and clinical practices documents citing IPH'S research output	2	3	4	5	5	5	5	5	5	5	5
2.	Percentage of research funding generated from extra-mural sources (Denominator: total research grant)	1%	1%	1%	1%	1%	2%	2%	2%	2%	2%	2%
3.	Number of publications in high impact journals (IF≥1.0)	40	42	44	46	48	50	52	54	56	58	58

OUTCOME 2: STRENGTHEN CAPACITY BUILDING

NO.	INDICATOR	TARGET									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1.	The number of experts trained in identified areas	20	22	24	26	28	30	32	34	36	38

Definition:

Expert: capable to train others or provide consultation in identified areas (Members of JPPNIH, JPPCRC & MREC)

Identified areas: public health (based on public health discipline) or research related (complex sampling, validation study, research methodology)

OUTCOME 3: INTENSIFY CONSULTATION AND TECHNICAL SUPPORT

NO.	INDICATOR	TARGET									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1.	Number of officers as journal reviewer (DG Approval/NIH, Journal, Technical Report)	18	20	22	24	26	28	30	32	34	36
2.	Number of officers as consultant	8	8	8	8	10	10	10	12	12	12

Definition of consultant:

- i. with invitation/formal appointment (international/local)*
- ii. officer still in service/appointment valid for the current year*



4.3 STRATEGIES AND PLAN OF ACTION

4.3.1 STRATEGY 1: CONDUCT POLICY DRIVEN PUBLIC HEALTH RESEARCH

The National Health and Morbidity Survey

The National Health and Morbidity Survey (NHMS) was first initiated in 1986. The objectives were to obtain community-based data on common health problems, health needs and expenditure on health in the community for the need of stakeholders especially policymakers in the MOH. The findings from NHMS would enable the MOH to review priorities and activities of programmes, plan future allocation of resources and evaluate the impact of strategies.

The NHMS was initially conducted every 10 years, from 1986 until the third NHMS in 2006 with very large sample sizes. However, the ten-yearly gap between surveys was deemed too long and more contemporary data were needed for the planning of health programmes. In 2010, the implementation of NHMS was reviewed and a more frequent survey was suggested to ensure timely information for policymakers, particularly to support the implementation of healthcare transformation and the 5-yearly Malaysian Plan.

Thus, starting from 2011, NHMS has been conducted in a 4-yearly cycle with annual data collection. The sample size has been reduced but is still adequate for state-level analysis for most of the modules. The first year of each cycle would focus on non-communicable diseases (NCD), risk factors, and healthcare demands—followed by different scopes in the subsequent three years.

In determining modules to be included in NHMS, a few criteria have been used which include:

- a. Population or community level problems
- b. Conditions/ diseases with the prevalence of 5% or more
- c. Problems related to lifestyle, environment or population demographic
- d. Causing significant physical, mental or social disability
- e. Has important economic implications
- f. Information not available through routine monitoring system or other sources
- g. Feasibility of obtaining information through a nationwide survey

Future Implementation of NHMS

In evaluating the implementation of NHMS, feedback from main stakeholders in the MOH were obtained. Based on the feedback, a few changes in the implementation of the NHMS have been proposed. The proposal was approved by the NHMS Steering Committee chaired by the Director General of Health. In line with the 5-yearly Malaysia Plan, NHMS will henceforth be conducted in a 5-yearly cycle. The scopes in the cycle would include:

- a. Non-communicable diseases and healthcare demand
- b. Maternal and child health
- c. Adolescent health
- d. Nutrition
- e. Communicable disease/ Elderly health

The same existing criteria will be used for the selection of modules to be included in each edition of the NHMS, and state-level analysis will still be conducted for most of the modules.

Other Studies

Apart from the NHMS, a few other types of studies will also be conducted by the IPH which include community-based studies other than NHMS (GATS, Orang Asli Health Survey, Global School-based Students Health Survey), intervention or evaluation studies, systematic and scoping review, the burden of disease study and development and validation of new research tools or instruments.



Strategy 1: Conduct Policy Driven Public Health Research

Activities/Initiative	Indicators (KPI)	Targets									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Conducting NHMS in various areas	At least one survey done in a year	Maternal & Child Health	Adolescent Health	NCD HCD	Nutrition	Elderly	MCH	Adolescent Health	NCD HCD	Nutrition	Communi-cable Diseases
Conduct other community-based survey	Number of other community-based survey	1	1		1		1		1		1
Conduct intervention or evaluation study in public health areas	Number of Intervention or evaluation study initiated	1		1				1		1	

Activities/Initiative	Indicators (KPI)	Targets									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Conduct burden of disease study	Number of burdens of disease study	1	1	1	1	1	1	1	1	1	1
Development and validation of new tools and instrument	Number new tools and instrument developed and validated	1			1			1			1
Conduct systematic/scoping review	Number of systematic/scoping review	4	5	5	5	5	6	6	6	6	6

Activities/Initiative	Indicators (KPI)	Targets										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Involvement in collaborative research project	Number of collaborative research projects with non-IPH researchers (government agencies, academia, industries and others)	30	30	30	30	30	32	32	32	32	32	32



4.3.2 STRATEGY 2: ADOPTION OF TECHNOLOGY IN CONDUCTING RESEARCH

IPH collects data through a variety of approaches, including face-to-face, telephone-based, web-based and paper-based self-administered questionnaire interviews. In a future that's marked increasingly with change, information growth and evolving technologies, the use of technologies would enhance productivity, communication, problem-solving and decision-making for research studies that become more complex and sophisticated. Technological innovation creates new opportunities for survey capabilities enhancement and expansion.

Historically, IPH research and surveys relied on a paper-based interview approach for data collection. In 2015, the mode of data collection shifted to using Computer-Assisted Personal Interviews (CAPI) through an application called Survey Creation System (SCS). The SCS functioned as a tool for creating and administering the questionnaire. The SCS was installed into an Android tablet to facilitate data collection and the collected data was remotely sent to a dedicated server in IPH. CAPI has been used as the primary mode of data collection until today due to its freedom, mobility, and ability to function in offline mode (Figure 6).

In 2020, with the availability of the modern infrastructure at the National Institutes of Health complex, Computer-Assisted Telephone Interviews (CATI) was implemented to supplement and improve the data collection methods. The CATI data was then manually inserted into the SCS and server by an interviewer. For self-administered questionnaires (SAQ), the Optical Mark Recognition (OMR) technique was used and data extraction was performed using an Intelligent Document Processing platform (ABBYY FlexiCapture).

This platform is capable of scanning large amounts of OMR documents and extracting data, which is then stored on a separate server (Figure 6).

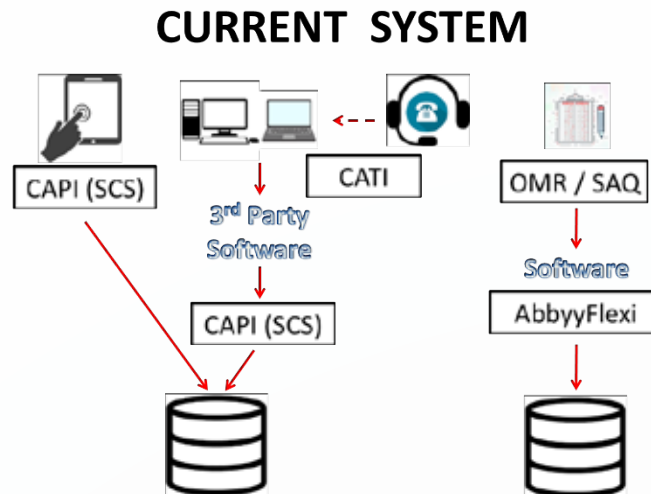


Figure 6: Current methods used in IPH for data collection

In the future, we are looking for a centralised, easily configurable system capable of creating and running a dynamic set of questionnaires across multiple platforms. Integrating various platforms (CAPI, CATI, OMR, and web-based) into a single server would improve monitoring productivity of the data and enhance the presentation of tabulated data for reporting in various formats. Audio-Video Computed-Assisted Self Interview (AVICASI) that incorporates visual and auditory approaches will help data collection from disabled or illiterate individuals and increase data quality for sensitive questions. Incorporating Optical Character Recognition (OCR) into the future framework will significantly increase data collection by increasing productivity and data accuracy at a low cost. A system that generates a unique ID that can be transferred via barcode/QR code enhances the protection of sensitive survey data and eliminates data entry errors. In comparison to local storage, cloud storage can significantly improve end-user data accessibility and retrieval in the future (Figure 7).

Future System

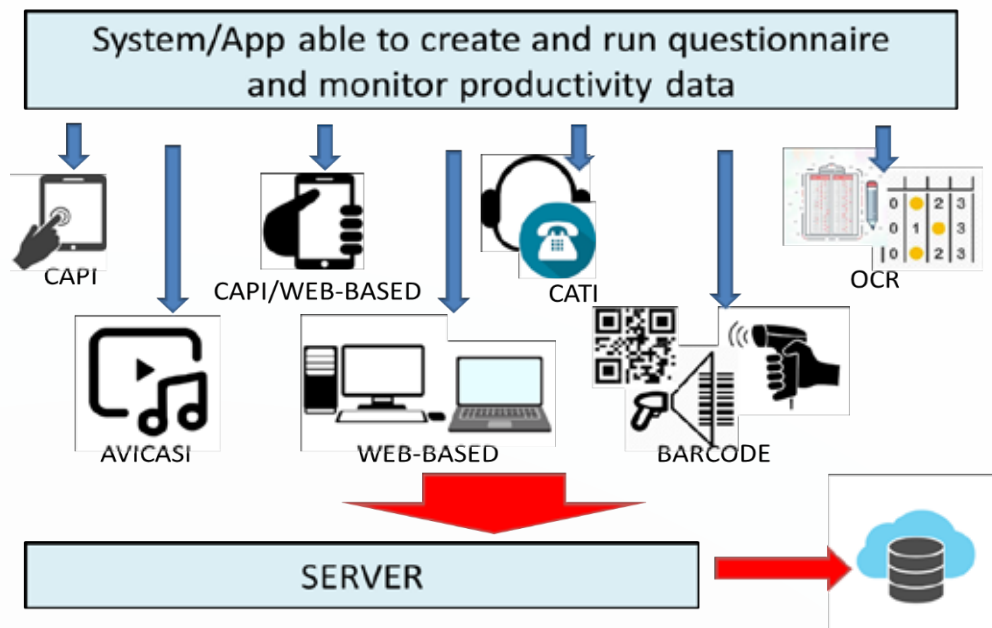


Figure 7: Future methods proposed for data collection

Strategy 2: Adoption of technology in conducting research

Activities/Initiative	Indicators (KPI)	Targets											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Adoption of Computer Assisted Personal Interview (CAPI)	Number of projects per year	1	2	1	2	1	2	1	2	1	2	1	2
Computer-Assisted Telephone-Interview (CATI)	Number of projects per year	1	1	1	1	1	2	2	2	2	2	2	2
CASI, AVICASI (Main NHMS only, NCD)	Number of projects per year			1					2				
Web-based application	Number of projects per year	2	2	3	3	4	4	5	5	6	6	6	6

4.3.3 STRATEGY 3: ACTIVE RESEARCH TRANSLATION AND DISSEMINATION

Dissemination of research findings is among the most essential step in the research process to spread evidence-based information via specific strategies and networks. It completes the research process by communicating the findings to others. The target audience for dissemination for IPH includes policymakers, scientific communities, and the public to improve health.

The ways in which research findings are communicated differ according to the target audience. Key findings are primarily disseminated to policymakers through presentations and policy briefs. A more thorough description of results and how they were derived is presented to the scientific community through journal articles, as well as poster or oral presentations at conferences or scientific meetings. Public outreach is achieved through social media and the internet in the form of concise and attractive websites, infographics, or explainer videos. It is hoped that more active research translation and dissemination of IPH findings will lead to more widespread use of these data among Malaysians.

In order to achieve the goal for translation and dissemination of research findings, there are four activities/ initiatives formulated with specific indicators and targets to achieve (KPI);

- Deliberative policy engagement
- Translation of research output
- Publication
- Presentation

Strategy 3: Active research translation and dissemination

Activities/Initiative	Indicators (KPI)	Targets									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Deliberative policy engagement	Number of completed research presented to engaged stakeholders	4	4	4	4	4	5	5	5	5	5
Translation of research output	Number of policy brief produced per year	1	1	1	1	1	1	1	1	1	1
Publication	Percentage of publication in indexed journals	85%	85%	85%	90%	90%	90%	90%	90%	90%	90%
	Total number of research highlight/research brief/executive summary/infographic	30	35	40	45	50	55	60	65	70	75

Activities/Initiative	Indicators (KPI)	Targets										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Presentation	Total number of presentations conferences and scientific meetings (first author in IPH or co-author with non-IPH)	100	100	100	100	100	120	120	120	120	120	120
	Percentage of presentations at the international conferences and scientific meetings	10%	12%	14%	16%	18%	20%	20%	20%	20%	20%	20%
	Number of presentations of research findings to stakeholders	15	16	17	18	19	20	20	20	20	20	20

Definition :

International conference : The conference held in foreign country , or if it is held in Malaysia, the organiser is an international organisation

4.3.4 STRATEGY 4: NURTURING CAPACITY AND PROFESSIONAL DEVELOPMENT

IPH's capacity building is critical to the advancement of MOH's research and public health competency. Our researchers require substantial support and an 'enabling' environment that encourage professional development. Staff is one of the key elements of an organization's success. The overarching goal for nurturing capacity and professional development is to boost performance, knowledge and organization achievement by elevating the skill level of IPH's researchers. It also has a positive impact on efficiency, innovation and productivity.

Nurturing capacity and professional development can enhance knowledge, skill, self-efficacy (including confidence), changes in practice or policies, behaviour change, application and system-level capacity. Training is the backbone of an organization's success. The need for effective and ongoing training is important in achieving the successful capacity building of researchers in IPH. Effective training will provide IPH's researchers with heightened standards, as well as improved productivity and efficiency in achieving IPH's goals.

Several steps are being taken to increase IPH researchers' capacity and competency in public health research. Among the steps taken are sending IPH staff for LDP or courses in public health and research related area and encouraging staff to enrol in postgraduate or advanced degree programs. The number of staff trained through courses in a given year and the number of staff enrolled in post-graduate or advanced diploma courses are used to assess the success of the steps taken.

STRATEGY 4: NURTURING CAPACITY & PROFESSIONAL DEVELOPMENT

Activities/Initiative	Indicators (KPI)	Targets											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
To equip IPH staff in public health and research related area (minimum: research method/ data analysis intermediate level)	Percentage of technical staff equipped with the relevant knowledge & skill	45% of staff	45% of staff	50% of staff	50% of staff	55% of staff	55% of staff	60% of staff	60% of staff	60% of staff	60% of staff	60% of staff	60% of staff
Number of staff with postgraduate/ advanced degree program; post diploma, master, area of expertise PhD	Percentage of staff	50% of staff	50% of staff	55% of staff	55% of staff	60% of staff	60% of staff	65% of staff	65% of staff	70% of staff	70% of staff	70% of staff	70% of staff
Capacity building of expertise research related area: 1. complex sampling 2. Structure Equation Model/Rasch/ other validation method courses 3. impact evaluation 4. policy brief 5. Modelling/Big Data Analytics 6. New area	Number of experts trained in identified areas	5	6	7	8	9	10	11	12	13	14	14	14

4.3.5 STRATEGY 5: TRAINING AS PLATFORM FOR KNOWLEDGE TRANSFER

Since its early establishment, IPH has been a regular training centre for MOH staff. IPH was established 30 years ago and has since focused on in-service public health training. This was during the late 1990s to early 2000s. Several in-service courses which covered safe motherhood initiatives, mental health, primary healthcare for nurses, adolescent health, child health and elderly health had been conducted as “Training of Trainers” (TOT) courses for staff from the Health Division of MOH, as well as state and district-level health staff throughout the country. These trainers subsequently conducted ‘echo’ training at state and district levels. Training modules, which were adapted from WHO modules were developed for the use of the trainers and participants.

From the year 2005 onwards, IPH changed its role from supporting health training programmes to become a full-fledged research institute with its core function focusing on becoming a leader and reference point for Epidemiological Survey Research in MOH. However, IPH continues to deliver training for MOH staff to enhance professional development, mainly in Epidemiological Research and Public Health. This service is provided to MOH staff from different backgrounds who are interested in research.

STRATEGY 5: TRAINING AS PLATFORM FOR KNOWLEDGE TRANSFER

Activities/ Initiative	Indicators (KPI)	Targets									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
To conduct training in areas of expertise (for external clients- min 60% of external clients) 1.scientific writing 2. poster/oral presentation 3. questionnaire development & validation 4.Infographic 5. Other relevant areas	Number of trainings conducted	0	2	2	3	3	4	4	5	5	5

4.3.6 STRATEGY 6: PROVIDE CONSULTATION AND TECHNICAL SUPPORT

One of the core functions of IPH is to provide consultation and technical support. This pertains to stakeholders and other relevant parties within the MOH, as well as other local and international agencies. Consultation provided includes areas of expertise on the subject matter, research and survey methodology. There is multidisciplinary expertise of public health researchers in IPH (such as Medical Officers, Research Officers and Allied Health Professionals). Several officers in IPH also qualify as panel members and reviewers for the Research Committee of NIH and reviewers for local and international journals.

Currently, the consultation included several parties who have worked with IPH and MOH program managers. Furthermore, the majority of the consultations were conducted by a selected group of senior officers in IPH. Many requests for journal reviews are disregarded due to other research commitments.

As we strive to be the leader and centre of excellence in epidemiological and survey research, technical and expert consultation is a vital process. This is dual-pronged as there would be a need for IPH to be more visible and accessible for other parties to be aware of the expertise IPH has to offer. At the same time, the staff would need to be trained, build confidence in specific areas and have ample consultation to assist and collaborate with all parties involved. Consultation is also a vital process in improving the visibility of the organization. The strategies, KPI and target for IPH to provide consultation and technical support listed in the table below.

STRATEGY 6: PROVIDE CONSULTATION AND TECHNICAL SUPPORT

Activities/ Initiative	Indicators (KPI)	Targets										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Providing consultation as International Journal reviewer	Number of officers as reviewer for international journals	30	30	30	30	35	35	35	40	40	40	40
Journal Reviews (local and international journals)	Number of manuscripts reviewed	45	45	45	45	50	50	50	55	55	55	55
Consultancy services provided to MOH (with formal appointment)	Number of consultancy services provided to MOH (no of committee/ membership)	8	8	8	8	10	10	10	12	12	12	12
Consultancy services provided to non-MOH agencies	Number of consultancy services provided to other	4	4	4	4	5	5	5	6	6	6	6

Activities/ Initiative	Indicators (KPI)	Targets												
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030			
	ministries and agencies (no of committee/ membership)													
Technical services provided to MOH	Number of technical services given	20	20	20	20	25	25	25	30	30	30	30	30	30
Technical services provided to non-MOH agencies	Number of technical services given	20	20	20	20	22	22	22	25	25	25	25	25	25
Lectures provided by technical officers	Number of lectures given	80	80	80	80	90	90	90	100	100	100	100	100	100

Definition

- *Consultation: an activity based on a formal appointment into a group/organization (with appointment letter, formal email, Term of Reference)*
- *International Consultation: a formal appointment from an international organisation or reviewer for international journals*
- *Local Consultation: a formal appointment from a local organisation or reviewer for local journals*
- *Technical Support: any formal discussion or consultation without a formal appointment letter (for university students, review manuscripts from DG office for non-MOH first authors)*

MONITORING AND EVALUATION

5. MONITORING AND EVALUATION

The IPH Strategic Plan will be monitored half-yearly. This monitoring, evaluation and review mechanism will be a bi-annual exercise from 2021 until 2030. The list of performance indicators is as listed in the Outcomes and Plan of Action tables.



CONCLUSION

6. Conclusion

IPH will continue to support all programmes and activities within NIH and other sectors towards achieving the best in public health-related endeavours and plays an important role in ensuring all activities are geared towards achieving NIH, Research and Technical Support Programme and MOH objectives.

Therefore, the IPH Strategic Plan 2021-2030 was created to provide direction to all relevant sectors. It is hoped that this strategic plan will be a reference for all research centres in IPH to develop their respective activities and programs for the next ten years.

This strategic plan represents a commitment towards improving the health of the people of Malaysia by providing the way forward towards the development of a sustainable public health system for future generations.

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