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**RESEARCH PRIORITIES FOR THE HEALTH SECTOR  
FOR THE 8<sup>th</sup> MALAYSIA PLAN**

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**1. PREAMBLE**

The Malaysian government gives importance to and makes provisions for R&D. Many mechanisms and institutions have been put in place to facilitate research in all sectors, and one of these is the IRPA or Intensification of Research in Priority Areas introduced in the 5MP. The health sector of IRPA has taken prioritisation as an important and serious task. There are many institutions in health care involved in research. The Ministry of Health, being the major stakeholder in health care, is responsible for coordinating these institutions. With the continually increasing number of universities offering medical and related studies, the number of such institutions is on the increase. For preparation of the 8MP, the Ministry of Health as one of these institutions needs to determine its priorities, and then together with the other partners, will determine the priorities for the overall health sector.

**2. BACKGROUND**

At the inter-institutional meeting to identify the research priorities for the health sector for the 7MP, held in mid-1994, priorities were determined according to the hierarchy of socio-economic groups, target areas, programmes and scopes. The more detailed projects under these were to be determined by the researchers when they embark on the projects themselves. The most useful level for reference is the "target area." There were 7 target areas identified at the deliberations, and an eighth one (medical biotechnology) was added later on by the IRPA Secretariat in the Ministry of Science Technology and Environment. These 8 target areas are:

1. Health problems associated with lifestyles
2. Health problems related to demographic changes
3. Vector borne and other communicable diseases
4. Epidemiological databases
5. Technologies in health



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6. The health system and health care industry
7. Environmental and occupational health
8. Medical biotechnology

Under each of these priority target areas, several priority "programmes" were also identified. Needless to say, these areas were arrived at by consensus among the institutions following their respective views on their own priority areas. Over the last five years, these priorities have served researchers in these institutions well in guiding them to conduct research. Indeed there has been some achievements in the conduct of research in these priority areas. For the Ministry of Health alone, the amount of IRPA funds allocated for research for the first three years of the plan period (1996 – 1998) was slightly more than 14 million ringgit, of which more than 85% was spent. Of course there was research work on these priority areas which were funded by other, non\_IRPA sources. There were 89 IRPA projects conducted, and more than half of these are already completed, resulting in various outputs such as newer diagnostics, treatment methods, control methods or just the acquisition of new useful knowledge. Needless to say several presentations and publications also resulted from research in these priority areas.

Hence the priorities identified for the 7MP have served the Ministry well from the output obtained. Will they still be relevant and useful for the 8MP? The different institutions have begun to review these priorities after almost five years of implementation, and especially to get together again to set priorities for the next five years. The Ministry of Health utilised the second annual scientific conference of the NIH in July 1999 as the forum to review its priorities.

### **3. PRIORITIES FOR RESEARCH – CRITERIA**

Countries use different criteria in determining research priorities depending on several factors such as their stage of development, the amount of resources available for research, and the dependence of their economies on research. In the USA for instance, research priorities are based on very broad and general criteria i.e:

1. It meets public health needs
2. The research area has scientific quality
3. There is high probability of success
4. Maintenance of a diverse profile

## 5. Maintenance of adequate research infrastructure

The criterion of "meeting public health needs" of course by itself is dependent on other criteria, such as the disease burden (in terms of morbidity, mortality and disability), the costs of leaving it unattended, and the way the public views the problem. This criterion is well-served by the concept of Essential National Health Research (ENHR) which compels countries to conduct research based on their real needs. This concept, although has been accepted by many, was seen to be inadequately implemented as shown by the statistics in health research. In many countries, much resources especially funds were used for research in some specific areas, whereas the main health problems of the country were in other areas. There is an international initiative for ENHR, led and coordinated by the Commission for Health Research in Development (CHRD)

The Western Pacific Region (WPR) of the World Health Organisation (WHO) in its Strategic Plan for Research for 1997-2001 has listed down clear primary and secondary criteria for setting priority in research. As expected being the leading international agency for health, the WHO looks at criteria in research in a very macro and broad perspective. These criteria are:

### *Primary criteria*

1. Importance to stakeholders in developing countries
2. Degree of emphasis on individual responsibilities in the context of supportive environments
3. Amenability to collaborative research
4. Urgency for solutions or planning in the area of concern
5. Extent of promotion of multisectoral and interdisciplinary involvement
6. Level of contribution to sustainable improvement in health in particular to sustainable development in general
7. Relationship to broader health and development issues
8. Availability of indicators or capability to develop suitable indicators for evaluation

### *Secondary criteria*

1. Degree to which the project has been conceptualised from a systems perspective
2. Estimated health impact including number of people to benefit
3. Relevance to other priority fields of research
4. Quality of research methodology

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5. Availability of appropriate expertise and technical capabilities
6. Scale of project including budget and time frame
7. Extent of existing efforts by other agencies
8. Potential of demonstrating effects
9. Potential of inter-country and inter-regional collaboration
10. Likely cost-effectiveness

As the custodian of health for Malaysians, the Ministry of Health not makes health policies for the whole country, but also is the main player in direct provision of health care. In both these two functions, there are clear principles and policies. Therefore, the research priorities need to be in line with these policies and principles. There are of course various ways and references for these policies. For the purpose of this exercise, one such reference is the list of characteristics of the future health care in Malaysia, as presented in the keynote address of the Director General at the 33<sup>rd</sup> Malaysia-Singapore Congress of Medicine in August this year. In the address titled "Medicine of the Future: Guiding principles and Characteristics" the following eight characteristics were described: and in identifying research priorities, these should be kept in mind:

1. Wellness focus
2. Person focus
3. Informed person
4. Self care
5. Care provided at or close to the home
6. Seamless and continuous care
7. Services tailored as much as possible to individual needs
8. Effective, efficient and affordable care

#### **4. SETTING PRIORITIES FOR RESEARCH IN HEALTH IN 8MP**

The Ministry of Health coordinated an inter-institutional conference on setting research priorities for the whole health sector for the 8MP and a draft document is now ready for further refinement. In essence the priorities of the 7MP in terms of broad target areas are maintained, with several new additional priorities. As an example, clinical research is now a target area by itself.

The conference discussed at some length on the criteria for priority in health research that should and probably be supported by the IRPA mechanism, and the criteria suggested were quite similar to the ones mentioned in the preceding section. It was also mentioned that the “dream” of winning a Nobel prize should be seriously pursued, which implies that a lot more resource and expertise need to be made available for basic research.

## **5. DISCUSSION**

Overall it can be claimed that the priority setting exercise using the 7MP format based on the hierarchy of target area, programme and scope is a useful approach. The experience of the Ministry of Health in using this format in the 7MP bears testimony to its usefulness and appropriateness. In addition to this existing format, the use of burden of illness as measured by the rather crude indicators of morbidity and mortality to some extent gave more meaning in the priority setting, especially if research is to meet real health needs.

The fact that the priorities for the 8MP remains relatively unchanged in terms of target areas suggests that the health problems of the nation are similar to those identified five years ago. The addition of the two new target areas, which essentially involved the upgrading of “programme” to “target area” suggests that these have gained greater importance over the years, and require more attention in terms of research.

There are of course several issues that exist regarding priority setting in research, to which attention is to be paid. If these issues are effectively addressed, research in the 8MP will be better managed and priorities identified are more likely to be adhered to. Some of these issues are described in the following section.

## **6. ISSUES – FOOD FOR THOUGHT**

### **6.1. Priorities – whose perspective?**

While the priority setting is carried by consensus, it still remains an inevitable fact that the different professionals involved have their own bias and preferences. One’s own experience and

position in the overall health systems of the country will certainly influence one's perception of what is important and what is less so. This happens not only in prioritising research, but in other matters in health care as well especially where there is the element of limited resources. In the UK for example, there have been instances when the third party payer (insurance) determine what is and what is not to be given to a patient, much to the professional disagreement of the attending doctor.

#### **6.2. Are we clear and consistent in the definition of research ?**

One pertinent issue that came up several times in the process of approving IRPA funds is the decision on whether the project under review can be considered as "research". A clear case was the Second National Health and Morbidity Survey in 1996; some experts on the review panel were of the opinion that such surveys, especially one done in fixed intervals of time, do not constitute "research". Another potential area of contention is programme evaluation that utilises research methods – is this research?

#### **6.3. Do we have enough information to know our needs?**

The health sector needs to be sensitive to the tenets of ENHR, which propounds that research funds must be used in researching the "real" needs of the country. The determination of "real" needs by itself may be difficult. The use of burden of disease such as morbidity and mortality statistics may be not refined enough to be of much value. Thus many priorities may be identified not based on strong evidence, but more on subjective factors. There is therefore an inherent danger of identifying the wrong priorities, or of missing the real priorities.

#### **6.4. Are "target areas" well classified?**

The Ministry of Health maintained the format used in the 7MP, using the hierarchy of target areas, programmes and scopes. While this may be the wisest approach, there still remains the problem of target areas being classified in a manner with no clear criterion for classification. Hence the overlaps that are seen among programmes and scopes. For instance, medical biotechnology is a target area by itself, although the programme identified it is "new technologies in health" which happens to be the title for an independent target area. Several health problems can be the consequence of lifestyle which itself can be a consequence of demographic changes.

#### **6.5. Are the target areas and programmes too broad in scope – lack of focus?**

While it is true priorities that cover as wide an area as possible augurs well for the health programme, it may defeat the whole philosophy of priority-setting itself. Therefore it becomes incumbent for researchers and reviewers of research proposals to be prudent in selecting research that are to be carried out. This is not always easy.

#### **6.6. Some priorities may be neglected or not identified – the “orphan” areas**

While the preceding section suggests the problem of too much to be done to the extent of rendering priority less meaningful, there is also the problem of real priorities not identified. Hence there are areas that require research but they are not addressed. Another reason for this to happen is although the areas are identified as priorities, researchers do not “select” them for some reasons. This is the basis of the few panel-initiated projects (PIP) or what were also termed as “top-down” research projects.

#### **6.7. Tracking / monitoring is difficult**

This is a most urgent problem. There is currently no effective mechanism that tracks projects to ensure that they are indeed priorities, that priorities are not neglected, or that projects do not unnecessarily overlap. There is currently a CHRD-funded research project on “research resource flow” in three countries, Malaysia (represented by the IRPA Secretariat in the IMR), Thailand and Philippines. With the findings so far obtained, it appears that this problem is less so in Malaysia compared to the other two countries. The output of this project will be an instrument that can be used to monitor or track research funds and other resources.

#### **6.8. Something unexpected comes along the way**

Five years may be considered a long time in between priority setting, and it is possible for a priority area to emerge during the period. This is however not a major issue because as mentioned earlier the target priority areas identified cover such a wide scope that just about anything can be justifiably inserted into one of them.

#### **6.9. Do we have the capability to address all these priorities?**

Finally, while it is satisfying and useful to have a priority list for research institutions to refer to, and to guide them, the familiar problem of resource is still pertinent. Besides the funds required to address these priorities, the health sector may not have all the other resources for research. During the Nipah viral encephalitis outbreak for instance, the lack of a containment high-level biohazard protection laboratory was a barrier.

#### **7. CONCLUSION**

The Ministry of Health with its partners in the health sector has reviewed the priorities for health research in the next five years, and a list of priorities covering a broad and comprehensive scope in health matters has been drawn up. Many of these will need funding from the IRPA mechanism, but some will have to be funded by other sources, depending on the criteria to be used for IRPA funding. This priority list is reckoned to be a very useful guide for researchers in the health sector, not only to identify what research to do, but also to ensure that research conducted brings benefit to the health of Malaysians and contributes towards national development.

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