<table>
<thead>
<tr>
<th>Title</th>
<th>Application of new communication media to rural health programme.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Hashami Bohari.</td>
</tr>
<tr>
<td>Date</td>
<td>1993</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://hdl.handle.net/10220/2484">http://hdl.handle.net/10220/2484</a></td>
</tr>
<tr>
<td>Rights</td>
<td></td>
</tr>
</tbody>
</table>
Application Of New Communication Media
To Rural Health Programme

By
Hashami Bohari
APPLICATION OF NEW COMMUNICATION MEDIA

TO RURAL HEALTH PROGRAMME

Dr Hashami Bohari
Department of Community Health
Medical Faculty,
Universiti Kebangsaan Malaysia

Jakarta, Indonesia.

13 September, 1993.
1. INTRODUCTION

The tropical country Malaysia consist of three land areas. Peninsular Malaysia lies to the west and occupies the land area commonly known as the Malay Peninsula. To the east lie Sabah and Sarawak in the northern and north-western parts of the island of Borneo. Malaysia has a total population of 17.8 million (1990 estimates) with about 82% living in Peninsular Malaysia and about 8% in Sabah and 9% in Sarawak. About 65% of the population living in the rural areas.

2. HEALTH CARE SYSTEM IN MALAYSIA

System of health care in Malaysia may be classified as "traditional" system or "modern/scientific" systems. Both these systems run concurrently and are usually consulted simultaneously by many. The modern/scientific system consist of mainly two components; the government-run and subsidised health care delivery system, and the private fee-for-service clinics and hospitals. While the latter component (i.e. the private system) tend to cluster in the state (provincial) capitals and the bigger towns, the government system consists of a wide ranging referral system starting with the small rural clinic run by one to two health auxiliaries through midwife clinics or health centres, and district hospitals to the general and university hospitals at the pinnacle of the system.

With this network of health care delivery facilities of varying complexities the government services have been able to cover almost 95 - 97% of the population in Peninsular Malaysia. The
coverage for Sabah and Sarawak is about 50% of the population due to terrain and a widely-dispersed population. In the attempt to provide health for as many of the population, the population not able to access static health facilities are covered by mobile health teams travelling by land, water or air.

With these systems of health care delivery operating in the country some vital rates for the 3 areas are as follows:

**TABLE 1 : VITAL RATES FOR MALAYSIA 1981, 1990**

<table>
<thead>
<tr>
<th></th>
<th>Peninsular Malaysia</th>
<th>Sabah</th>
<th>Sarawak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Birth Rate</td>
<td>30.8</td>
<td>27.0</td>
<td>42.3</td>
</tr>
<tr>
<td>Crude Death Rate</td>
<td>5.2</td>
<td>4.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perinatal</td>
<td>23.7</td>
<td>13.9</td>
<td>N.A.</td>
</tr>
<tr>
<td>Neonatal</td>
<td>12.3</td>
<td>8.4</td>
<td>15.3</td>
</tr>
<tr>
<td>Infant</td>
<td>19.7</td>
<td>13.1</td>
<td>26.3</td>
</tr>
<tr>
<td>Maternal</td>
<td>0.59</td>
<td>0.20</td>
<td>0.22</td>
</tr>
</tbody>
</table>
### TABLE 2: HEALTH INDICATORS MALAYSIA, 1990

<table>
<thead>
<tr>
<th></th>
<th>Estimated rural population (million)</th>
<th>Doctor ratio (1990)</th>
<th>Antenatal coverage (%)</th>
<th>DPT/DT. 1st/3rd dose (%)</th>
<th>Polio 1st dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peninsular Malaysia</td>
<td>8.2</td>
<td>1:2294</td>
<td>78.2</td>
<td>96.4/92.0</td>
<td>96.1</td>
</tr>
<tr>
<td>Sabah</td>
<td>1.1</td>
<td>1:5061</td>
<td>84.9</td>
<td>89.1/79.0</td>
<td>96.1</td>
</tr>
<tr>
<td>Sarawak</td>
<td>1.3</td>
<td>1:2533</td>
<td>68.5</td>
<td>88.2/86.3</td>
<td>94.4</td>
</tr>
</tbody>
</table>

3. **TREND IN HEALTH PROBLEMS**

As in other developing countries, Malaysia undergoes a rapid change in its socio-economic developments. Improves education, income, food availability, communications, technologies and other resources have to some extent modify the lifestyles of the community and improves their health status. Many of the traditional health problems such as diarrhoea and infectious diseases are still observed in certain areas and among certain population groups. However, "modern" diseases typically present in the developed countries such as cardiovascular diseases, cancers, stroke, diseases of the metabolism and accidents are on the increase. Since 1970s, it has been reported that heart disease, malignant neoplasms, stroke and accidents have become the major cause of death in Malaysia.
The first public health revolution, which began in the late 19th. century and continued through the 1960's, was for the most part a struggle against the great epidemic diseases: cholera, typhus, smallpox, yellow fever, tuberculosis and polio. Basing their attack on these infectious diseases on the notion that environmental factors greatly affected health status, health professionals used the primary prevention strategies of major sanitation measures, development of effective vaccines used in mass immunization, regulation of food supply, improvement in nutrition and provision of adequate housing. Although the advances of the first public health revolution were interpreted as great victories for the public health movement, they were more importantly, seen as victories for science and technology. The emergence of antibiotics and other "miracle drugs" and development of effective surgical treatments led to an "engineering approach" to the human body. It has commonly belief that technology had the answer to the limitation of human health.

Maldistribution and inadequacy of health services provided especially to the underserved communities has later become the major issues. The underserved communities, particularly those in the remote, rural areas and in the urban slums are frequently have a lower health status, relatively lower education, lack of basic facilities and are socio-economically deprived. Health professionals, especially among the specialist and the private practitioners, are more concentrated in the urban areas and bigger towns. These have widen the gap between the urban and the rural areas. The implementation of various programs based on Primary
Health Care concept in the 1970's onwards, have to some extent reducing the severity some of the problems.

Successful implementation of various health programmes especially in the rural areas, better training and better ratio for health personnel, better treatment facilities and by putting more emphasis on preventive measures the prevalence of various communicable diseases such as tuberculosis, malaria, dengue, diarrhoea and other diseases have significantly reduced. The emergence of "modern" diseases which has no single predisposing cause but has a hierarchy of associated factors with a behavioural, social and politico-economic base require a more comprehensive and intersectoral programmes. This involves health promotion and disease control aspects of primary care, public health activities within the health sector and other aspect of public policy which impinge on health.

4. THE ROLE OF MEDIA TECHNOLOGY

Beside the "old" media such as newspaper, pamphlets and posters, the "new" electronic media such as radio, tv, video, tape slide and computers have play an important role in the dissemination of health information in the community during the outbreaks and for the promotion of immunization, nutrition, screening of diseases, family planning, environmental sanitation and other programs. In addition, the media are also useful in order to persuade the community members to adopt a healthy behaviour. Administrative communication become more efficient and effective with the wider use of telephone, fax machine, express courier and computer facilities. Health education activities such as exhibitions,
demonstrations, talks, counselling and patient education whether-in the hospital, health centres or in the community become more attractive, innovative and effective with the combination of better skills, technology and more active participant involvement. Patient's satisfaction and fulfillment of the public demand for more health informations through interpersonal communication and mass media have led towards a change in the health attitudes and life styles. All these factors, coupled with the availability of food and other resources, negligence, working in the more stressful environment and other related factors, have contribute to the increasing prevalence of chronic, modern diseases.

The "new" communication technology had also influence the curriculum development and training methods of the health professionals. A new trend of an innovative, integrated, problem-based and community-oriented types of learning were becoming a common feature for many medical schools including the 3 medical schools that we have in Malaysia. The teaching methods not only involve the lecture and tutorials which commonly use blackboard, chalk and handouts only but also a combination of old and new media technologies. The use of self-learning packages, problem-solving sessions, live tv, interactive video, computers, and tele-conferencing are becoming a common phenomena.

5. COUNSELLING PACKAGE FOR SMOKING CESSATION

That smoking is dangerous to health has been well known and well documented in the social science and medical literatures. Ciga-
Cigarette smoking has been identified as the single most important source of preventable morbidity and premature mortality. In Malaysia, as in the other developing countries, cigarettes are easily available, socially acceptable and tend to be associated with relaxation, pleasure and better social status. It is mainly consumed in the form of factory-made cigarette especially for the younger generation. However, among the middle age and older age group, those in the rural community and those in the lower socio-economic group, consumption in the form of the home-made, hand rolled cigarette are still widely practiced. Its consumption was noted to have increase by 4X between 1970 - 1985 and no indication that the trend will be stopped. It has been estimated that about 2 million people smoke cigarettes in 1986 and the numbers almost double by 1990. Several community studies have shown that smoking prevalence among male ranges between 40 - 70% and among females between 5 - 10%. The rates among urban-rural population are about equal.

Studies in USA and other developed countries have shown that about 5 - 10% of the smokers can stop smoking by themselves without any professional helps. However, for most smokers especially for those who are belong to the chronic and heavy smokers group, addicted toward nicotine and those who maintain smoking for social reasons, stop smoking can be a very traumatic and frustrating experiences. The right intentions, strong motivation, intensive efforts, proper planning, follow up, environmental support and professional helps are among the key factors if they want to stop smoking successfully and permanently.
Mass media campaign in the form of radio, TV or printed material's messages can perhaps improve the health knowledge and to some extent change the attitudes. However, for many smokers, these changes are not strong enough to translate into changes in the smoking habit. Among those who manage to stop, the relapse rate is very high up, to 80% in many studies in the first year after stopping the habit.

A study has been conducted in the rural area of Tg. Karang (about 90 kilometers from Kuala Lumpur) to determine the effectiveness of health education packages in order to modify the smoking behaviour of the community members. Smokers, identified during a rural health survey were invited to attend the counselling session at a rural health centre clinic every Wednesday, Thursday and Friday afternoon. They were exposed to a series of 5 counselling sessions of 1-2 hours each, covering various topics such as health hazards of smoking, smoking cessation methods, withdrawal symptoms, weight reduction diet, stress management and exercise. During each counselling session various 'new' and 'old' media were used to increase the counselling effectiveness. All the media used have almost similar in their content but were given different combinations for different group. These includes pamphlets, posters, models, specimens, mini flip-chart, tape-slide programmes and video programmes. At the end of the counselling session the respondents were interviewed regarding their perceptions towards the various aspects of the media used. A total 150 smokers in 14 different groups of 5 to 20 person per group have completed all the counselling sessions.
A total of 8 different pamphlets were prepared and distributed among the participants. Evaluation at the of the 5th session, have shown that most of our smokers not interested in reading the materials. Although all of them were literate, only about 9% of the samples read all the materials given and about 23% read only some part of the materials. Reasons given include, busy-no time to read (64%) forget (14.4%) not interested to read (11%), materials not attractive (8%) and others (3.6%). Interview during the follow-up have found that most of the respondent 82% have lost (misplaced) their pamphlets within 3 days after the last counselling session. Only a small percentage (18.5%) give the pamphlets to the family members to read. For posters, most of the respondents agree that the posters were attractive and they feel like want to look for more details, when they first see them. However when asked about effectiveness, majority of them perceived that the posters have to some extent increase their knowledge but not to change their behaviour. Mini flip chart were used by the counsellor to assist them explaining the facts about smoking during the counselling sessions. For the majority of the participants, the charts look fairly impressive, handy and attractive and informative. Some participants especially those who were in the larger group size (more than 15) reported that they have difficulty in reading the written facts in the chart from the distant.

Real, disease affected human organs were used during the counselling. The participants were curious and very much attracted to
look at them when they first saw it. They reported that the specimens and the models were very informative and easy to understand. However, a small number of the participants felt unhappy and uncomfortable with the use of the models and the specimens due to some religious beliefs. For them, taking away the organs were not allowed.

The tape-slide programmes have versions. Feedbacks received have indicated that the programme were very informative and entertaining. They like to see some of the beautiful slides and the music were appropriate and good. The only limitation for these programmes was a few technical problem in operating the machine.

We use 4 different video documentaries. It was noted that the video programmes was perceived as the most popular and effective media among the participants. They reported that the programmes were very good, entertaining and informative. The equipments (tv and video player) are available in most of the district hospitals and rural health centres and technical problem encountered through the five counselling sessions. The cost of the video production in our programme is not very expensive since it was done by our staff by using the facilities at our university.

At the end of the fifth counselling session, we evaluate the participant's intentions in changing their smoking behaviour. About 32.4% of the smokers want to stop smoking immediately, 51.4% mention the objective of stopping the habit in stages within 6 months and the rest (16.2%) interested only in reducing
the amount they smoked per day. About 45.9% of the participants manage to stay without a single cigarette throughout the 6 counselling sessions (minimum 3 days) and about 50% of the smokers manage to reduce the amount they smoke to less than 10 cigarettes per day at the end of the fifth counselling session. The verbal feedbacks on their smoking status was validated by measuring the urine cotinine and carbon monoxide levels.

6. CONCLUSION

Modern communicational technologies now allow us to hear, to see, and to choose what we will hear and see rapidly and often very realistically and in greater details than was ever possible before. But technological means of information transmission by themselves are not useful unless properly applied. Through the decades, the application of new media technology have play a very important role in the development and implementation of various health programmes, training of health professionals and health care management as a whole.

7. REFERENCES


### 10 Principal Causes of Death in Govt. Hospitals, Malaysia.

<table>
<thead>
<tr>
<th>Year</th>
<th>Infection</th>
<th>Infancy</th>
<th>Circulatory</th>
<th>Accidents</th>
<th>Respiratory</th>
<th>Nervous</th>
<th>Neoplasm</th>
<th>Allergic</th>
<th>Senility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>10</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>1974</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>11</td>
<td>9</td>
<td>11</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>1990</td>
<td>6</td>
<td>10</td>
<td>12</td>
<td>11</td>
<td>9</td>
<td>11</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>