

**MANAGED CARE INDIVIDUAL HEALTH INSURANCE
IN MALAYSIA**

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DECLARATION

I declare that this thesis is the result of my work, except the quotations and summaries as each resource has been mentioned.

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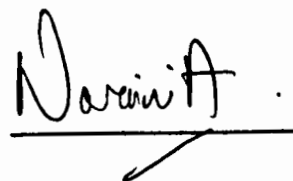
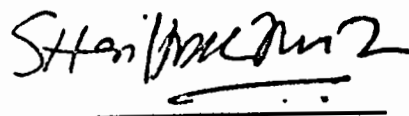


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ABSTRACT

In Malaysia, the integration of managed care in health insurance has gained popularity in these last few years. Managed care in health insurance is believed to have positive effect as it emphasizes on preventive care and control costs. This paper is to evaluate whether managed care has had a positive effect on the quality of care provided by insurance companies, by comparing the rates of performance on preventive care including women health in managed care individual health insurance and non-managed care individual health insurance plan. For all measures, managed care rates are statistically higher than non-managed ones.



INSURANS PERUBATAN PERSEORANGAN DENGAN MANAGED CARE DI MALAYSIA

ABSTRAK

Di Malaysia, gabungan managed care dalam insurans perubatan semakin popular sejak kebelakangan ini. Managed care dalam insurans perubatan dipercayai memberi kesan positif dimana ia mementingkan pencegahan daripada pengubatan dan ia bertindak mengawal kos. Kajian ini bertujuan menentusahkan kesan positif managed care dalam insurans perubatan perseorangan, dengan membandingkan kadar langkah pencegahan termasuk kesihatan wanita dalam insurans perubatan perseorangan dengan managed care dan tanpa managed care. Dalam kajian ini, kesimpulannya ialah managed care menunjukkan kadar statistik yang tinggi berbanding dengan tanpa managed care.



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CHAPTER ONE

MANAGED CARE IN MALAYSIA

1.1 Introduction

Managed care is an organized delivery system as a network of organization (for example, hospitals, physicians, clinics, and hospices) that provides or arranges to provide a coordinated continuum (from well care to emergency surgery) of services to a defined population. This system is willing to be held clinically and fiscally accountable for the outcomes and the health status of the population served. It is tied together by its clinical (treatment) and fiscal (financial) accountability for the defined population (Folland *et al.*, 1997).

In Malaysia, managed care is not new in public sector and it is similar to the European model. In fact, Ministry of Health (MOH) is the largest staff model Health Maintenance Organization (HMO) in Malaysia. HMO is the most common type of managed care besides Preferred Provider Organization (PPO) and Point of Service Organization (POS). However in the Malaysian private sector, managed care is relatively new. In private sector, Managed Care Organization (MCO), in the guise of panel doctors and third party administrators (TPAs), which have developed mainly to cater to that portion of the Malaysian population employed by private companies (Abdul Gani, 1999). Hence the managed care is more akin to the US model.



There are vast differences between European and US model. The former uses a fixed budget and great emphasis to bring down the cost and a patient does not have too wide a choice of doctors. While the US model is built around specific measures taken by the provider system, healthcare plan or insurance programme to provide services to a given population within a specified budget (Lim, 2001).

Since the emergence of this private MCOs in early 1990's, there are issues concerning the quality of care provided by the private sector. The Institute of Medicine (IOM) provides the definitions for quality of care as: "the degree to which healthcare services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."

Several researchers in Malaysia have studied on managed care in Malaysia. However most of the studies are on "What can we anticipated from the experience of Singapore and the United State" (Phua, 2000), "Private medical practitioners and managed care in Malaysia: a survey of knowledge and attitudes" (Gordon and Paul, 2002), "What future managed care portends for Malaysian doctors" (David KL Quek, 2000), "Privatization, the State and healthcare reform: Global influences & Local Contingencies in Malaysia" (Chan, 2000), "Managed care in Malaysia from the regulator's perspective" (Abdul Gani, 1999). Research on the effect of managed care on the quality of care provided by the private is not yet carry out in Malaysia.



1.1.1 Background

In Malaysia, the term 'managed care' began when the first MCO became operational in 1995. HMO Pacific Sdn. Bhd. also known as HMOP was the first MCO born in Malaysia and later was changed to the name PMCare Sdn. Bhd.. The number of managed care organizations in Malaysia has grown from 6 in year 1997 to about 55 MCOs are registered with the Ministry of Health for administrative purposes (MMA, 2002).

In Malaysia, under the Private Healthcare Facilities and Services Act 1998, insurance companies which have established 'panel hospitals/clinics' are classified as MCOs and are subject to the relevant provisions of the act. These would include the provision of information relating to the services and nature of arrangements with the medical providers (Abdul Gani, 1999).

A key difference between MCO in insurance and other health insurance is the focus of financial management. Health insurance providing indemnity coverage projects health care expenditures as an independent third party. The emphasis is more on accuracy of projections as measured by loss and expense ratios and less on influencing the health care expenditure results themselves. Under managed care, however, the financing and delivery of health care are integrated. Projections and management (control) of health care expenditures on the delivery side and projections used for pricing and budgeting are both considered together (Kenneth *et al.*, 2000).

There are three community rating approaches used in managed care rating: 1) community rating, 2) community rating by class and 3) adjusted community rating. In



community rating all groups are priced using the same per-member, per-month rates. Community rating by class is a modification that allows for variations in the community rate for a given group based on the age, gender, and other acceptable risk factors of the group. While adjusted community rating allows greater flexibility in setting the prospective rates of a group including the experience of the group (Kenneth *et al.*, 2000). In Malaysia, one of the health insurance plan use community rating by class based on the age is the Sihat Malaysia plan. Sihat Malaysia is a product of National Insurance Association of Malaysia (NIAM) in collaboration with 3 MCO and Mediexpress is one of them.

The question now is concerning the quality of care and services available to the recipients. Do managed care has positive effects in insurance? How can quality be assured when consumer choice is restricted? Do managed care bring down the cost in insurance?

1.2 Objective

In this study, the objective is to evaluate the hypothesis that managed care has had a positive effect on the quality of care provided by the private sector (insurance companies). This study is to compare rates of performance for certain measures of quality in managed care-individual health insurance plan and non-managed care-individual health insurance plan. Study emphasis on preventive care including women health.

Preventive care and women health are chosen in the mean to compare the rates of performance in both plan because proponents of managed care believe that managed care



would shift the emphasis of medicine to preventive and primary care, increase efficiency in the healthcare system, promote the provision of medically necessary care and help to control costs (Robinson and Steiner, 1998). That is the theoretically benefit of managed care.

In preventive care steps are provided to prevent disease or to detect disease through pre-hospital diagnosis visit and in-hospital physician's visit. In this study, focus on women health especially breast cancer and cervical cancer. This is due to the fact that breast cancer is the most common female malignancy in Malaysia and all over the world. Its incidence in Malaysia in 2000 was 41.9 cases per 100,000. In 2002, 4337 cases of breast cancer were reported to the National Cancer Registry with an incidence rate of 52.8 per 100,000 and accounting for 30.4% of all diagnosed malignancies in Malaysian women. One in 9 Malaysian women has a chance of developing breast cancer (Omar and Yip, 2005). In Malaysia, cervical cancer ranks as the second most deadly disease affecting Malaysian women after breast cancer. The incidence is 14 per 100,000 women in this country and it accounts for 7.9% of all cancer cases (Malaysia Medical Association, 2002).

Since the emergence of this second group of managed care in Malaysia, the breadth of performance measurements needs increase. This study can be a guidance to both the policy owner who pay premium to the insurance companies (insured), as well as the insurance companies (insurer) which they agree to pay a defined amount of money to the insured if a covered event occurs during the policy term (Kenneth and Harold, 2000).



CHAPTER TWO

LITERATURE REVIEW

According to Gillian Fairfield *et al.* (1997), patients too surrender some of their freedom under a managed care system. They may be restricted in their choice of doctor or hospital, and guidelines may dictate primary care rather than secondary care. Decreased choice may be offset by better outcome and quality of care: better integrated systems, improved quality monitoring, and greater attention to their satisfaction. Studies of the Medicaid population indicate that managed care may allow better access and some aspects of satisfaction than do traditional fee for service plans, although consumer satisfaction is generally considered to be poorer in managed care organizations.

In the study by T.P. Mathew *et al.* (2002), they found patients receiving pre-hospital care had a lower in-hospital mortality compared to those first seen and managed in the hospital (8% vs 13%, $P=0.04$). For those receiving fibrinolytic therapy, pre-hospital administration compared to in-hospital administration was associated with a lower in-hospital mortality (7% vs 13%, $P=0.02$). Similarly in the GREAT study, 3 month mortality was 8% for the 163 patients given anistreplase at home compared with 15.5% for the 148 patients who received anistreplase in the hospital ($P=0.04$). In the EMIP trial, while death from cardiac causes at 30 days was significantly less frequent in the pre-hospital group than in the hospital group (8.3% vs 9.8%; reduction in risk, 16%; 95% confidence interval 0–29%; $P=0.049$), there was only a trend to a reduction in overall



mortality at 30 days in the pre-hospital group (9.7% vs 11.1% in the hospital group; reduction in risk, 13%; 95% confidence interval 1 to 26%; $P=0.08$).

Research by D. Stream (1996) showed that HMOs are more effective at providing preventive care and health-promotion services than traditional fee-for-service indemnity plans. Fee-for-service health insurance is private (commercial) health insurance that reimburses health care providers on the basis of a fee for each health service provided to the insured person. It is also known as indemnity health insurance. It is also a health insurance plan that allows the holder to make almost all health care decisions independently. The plan holder pays for a service, submits a claim to the insurance company, and, if the service is covered in the policy, receives reimbursement. Fee-for-service plans often have higher deductibles or co-payment than managed care plans.

Helen Halpin Schaffler and F. Douglas Scutchfield (1998), studied that managed-care organizations routinely provide clinical preventive services as covered benefits, while many indemnity plans still do not. There is also evidence that the increased ambulatory visit rate in managed care results in more clinical preventive services being provided than is the case in indemnity plans.

In the research done by Bruce D. Platt and Lisa D. Stream (1996), managed care plans tend to offer better access to screening and preventive care services. Thus, they are better at keeping their enrollees healthy, and their physicians are often able to diagnose



conditions at an earlier, more manageable stage. For these and other reasons, managed care plans can be more efficient and effective than fee-for-service plans. The studies clearly indicate that HMOs are a viable means for providing low-cost, quality health care.

According to Deborah A. Zarin *et al.* (1998), they found that the proportion of privately insured, Medicaid, and Medicare patients receiving care through a managed care plan was much lower than the proportions enrolled in these plan types nationally at the time this study was conducted. They conclude this could reflect differences in gatekeeping mechanisms and the roles of psychiatrists in managed and nonmanaged systems of care, with patients with mental disorders in managed care plans less likely than those in nonmanaged plans to receive mental health treatment from a psychiatrist. It also could reflect selection biases in managed care plan enrollment, with persons with mental disorders less likely to be enrolled in a managed care plan. In addition, some state Medicaid managed care contracts have excluded specific groups of persons who may be more likely to have a mental disorder, such as those in state mental health institutions or those eligible for Medicaid through the Social Security Disability Insurance (SSDI) program. Medicaid beneficiaries enrolled in managed care plans also generally maintain dual insurance status through both the managed care contract and the state Medicaid plan, which may cover noncontract services, such as psychiatric services. The observed difference in use of psychiatric care in managed and nonmanaged systems of care may have implications for quality of care, particularly related to the provision of pharmaceuticals in psychiatric treatment.



A study by Gerard Chin Chye Lim (2002), found out that the overall prevalence of breast self-examination is 46.8% in Malaysia. The screening rate by breast self-examination was 34.1%, followed closely by health worker examination (31.1%). Mammography was carried out in only 3.8% of women. Lower rates were found among rural women, while married women had a significantly higher screening rate than the other marital categories of women. Screening rates were higher among those aged 20–49 years. Health education programs have to target the population subgroups that would benefit from screening, including women in the older age groups. One strategy would be to encourage both Pap smears and breast self-examinations to be done simultaneously. Mammography as a population-based screening procedure for breast cancer is not a policy in Malaysia as its value is expected to be negligible with the limited resources at present.

Steven Udvarhelyi et al. (1991), in their study of “Comparison of the Quality of Ambulatory Care for Fee-for-Service and Prepaid Patients”, they found that HMO patients were more likely to undergo screening for breast cancer and cervical cancer and had better blood pressure control than fee-for-service patients. The study also found that HMO patients were equally as likely to undergo screening for colon cancer as fee-for-service patients. Interestingly, the authors' initial hypothesis was that financial incentives to limit treatment in a network model HMO would reduce the number of services provided to HMO patients and potentially reduce the quality of care received. However,



they determined from their data that HMO patients "received equal or better quality of care than fee-for-service patients treated by the same physicians" for the treatment of uncomplicated high blood pressure "and for the provision of preventive services to middle-aged women without chronic diseases." The authors concluded that "incentives for physicians to limit the use of medical services did not compromise the quality of ambulatory care" received by HMO patients.

Diane M. Makuc et al.(1994) reached a similar conclusion in a cancer screening study of women. In the study, female HMO enrollees aged fifty to sixty-four were found to receive more mammographies, clinical breast exams, and Pap tests than women with fee-for-service coverage. Using data from the 1992 National Health Survey, the authors of this study found that among women aged fifty to sixty-four with twelve years of education or less, 62.8% of female HMO enrollees had received a mammogram within the year preceding this study, compared with only 48.1% of women with fee-for-service coverage. Almost 71% of the total HMO enrollees had recently received a clinical breast examination and nearly 63% had received a Pap test within the past year. In comparison, less than 64% of women with fee-for-service coverage had received a clinical breast exam in the past year, and only 56% had received a Pap test in the past year. For all women aged sixty-five and older, use of mammography and Pap testing was approximately 13% higher for HMO enrollees than for women with fee-for-service coverage.



Gerald F. Riley *et al.* (1994), found that providers diagnosed HMO enrollees with melanoma, female breast, cervix, and colon cancer at significantly earlier stages in the disease. The largest differences were found in women with cervical cancer and in patients with melanoma. Health maintenance organizations diagnosed 58% of enrollees with cervical cancer at the "in situ," or local stage, as opposed to regional or distant stages. Only 38.8% of fee-for-service patients were diagnosed at this local stage. In melanoma patients, 39% of HMO enrollees were diagnosed when the cancer was at the local stage, compared to only 23.8% of fee-for-service patients.

The research indicates that the earlier diagnosis of these cancers may be attributable to HMO coverage of screening procedures such as mammographies, Pap tests, fecal occult blood tests, and physical examinations. However, in most cancers that lack these routine screening procedures, the researchers still found no difference in the stage of diagnosis between HMO and fee-for-service patients.

Kathryn A Phillips *et al.* (2004), in their study to examine whether gatekeeper requirements are associated with the utilization of cancer screening for breast, cervical, and prostate cancer. We found in multivariate analyses that women in gatekeeper plans were significantly *more* likely to obtain mammography screening with 22% higher odds (Odds Ratio [OR] = 1.22, 95% confidence interval [CI]=1.07–1.40), 39% higher odds of obtaining clinical breast examinations (OR=1.39, 95%, CI=1.23–1.57), and 33% higher odds of obtaining Pap smears (OR=1.33, 95%, CI=1.16–1.52) than women not in gatekeeper plans. In contrast, gatekeeper requirements were not associated with prostate



REFERENCE

- Abdul Gani Mohammed Din, 1999. Managed Care in Malaysia from the Regulator's Perspective. *Seminar on Managed Care in Malaysia 1999*, 14 March 1999, Kuala Lumpur.
- Bruce D. Platt and Lisa D. Stream, 1996. Dispelling the negative myths of managed care: An analysis of anti-managed care legislation and the quality of care provided by health maintenance.
<http://www.law.fus.edu/Journal/lawreview/issues/232/platt.html>.
- Chan C.K., 2000. Privatization, the State and Healthcare Reforms: Global Influences & Local Contingencies in Malaysia. <http://prn.usm.my/chi.html>.
- David KL Quek, 2000. Changing Paradigms in Malaysian Health Care: What future managed care portends for Malaysian doctors. dquek@pc.jaring.my
- Deborah A. Zarin, Joyce C. West, Harold Alan Pincus, and Terri L. Tanielian, 1999. The People- to – People Health Foundation. *Characteristics Of Health Plans That Treat Psychiatric Patients Psychiatrists report that patients' care is affected by financial considerations more often under managed care plans* 18 (5), 226-236.
- Diane M. Makuc *et al.*, 1994. National Center for Health Statistics. *Health Insurance and Cancer Screening Among Women*. 254.
- Eric C. Schneider, Dr. Zaslavsky and Arnold M. Epstein, 2004. *New England Journal of Medicine. Use of high-cost operative procedures by Medicare beneficiaries enrolled in for-profit and not-for-profit health plans* 350 (2), 143-159.
- Folland S. , Allen C. G and Miron Stano. *The Economics of Health and Health Care*, 2ed. 1997. Prentice Hall, Upper Saddle River, USA.
- Gerald F. Riley *et al.*, 1994. *Am. J. Pub. Health. Stage of Cancer at Diagnosis for Medicare HMO and Fee-for-Service Enrollees* 84 ,1598-1600.



- Gerard Chin Chye Lim, 2002. *Japanese Journal of Clinical Oncology. Overview of Cancer in Malaysia* 32 (1), S37-S42.
- Gillian Fairfield, David J Hunter, David Mechanic and Flemming Rosleff, 1997. *BMJ. Managed care: Implications of managed care for health systems, clinicians, and patients* 314.
- Gordon Marnoch and Paul C. S. Lian, 2002. *Social Science & Medicine. Private medical practitioners and managed care in Malaysia: a survey of knowledge and attitudes held by Federal Territory based doctors* 54, 869-877.
- Helen Halpin Schauffler and F. Douglas Scutchfield, 1998. *American Journal of Preventive Medicine. Managed Care and Public Health* 14 (3), 240-241.
- Iezzoni Li, 1997. *Measuring Quality, Outcomes, and Cost of Care Using Large Databases. Assessing quality using administrative data* 127(5), 666-674.
- Jayasree Basu, Bernard Friedman and Helen Burstin, 2004. *Health Services Research. Managed Care and Preventable Hospitalization among Medicaid Adults* 39 (3), 489-510.
- Judith D de Jong, Gert P Westert, Cheryl M Noetscher and Peter P Groenewegen, 2004. *Health Services Research. Does managed care make a difference? Physician's length of stay decisions under managed and non-managed care* 4 (3), 1-10.
- Kathryn A. Phillips, Jennifer S. Haas, Su-Ying Liang et al., 2004. *Health Services Research. Are gatekeeper requirements associated with cancer screening utilization?* 39 (1), 153-178.
- Kenneth Black, Jr. and Harold D. Skipper, Jr. *Life & Health Insurance*. Upper Saddle River, NJ: Prentice Hall, 2000.
- Lim Kuan Joo, 2001. *Managed Care in Malaysia. Consensus Paper on Managed Care Organisations*, June 1998, Kuala Lumpur.



- Malaysian Medical Association, 2002. 2nd PPSMMA National Working Committee Meeting (2001/2002), 21st April 2002.
- Mario F. Triola. *Essentials of Statistics* . Pearson, USA, 2005.
- Melanie Napier, 2006. Robert Wood Johnson Foundation. *All Americans at Risk of Receiving Poor Quality Health Care*. 1.
- Omar Hassan Kasule SR, CH Yip, 2005. Biomed Imaging Intery. *Epidemiology of breast cancer in Malaysia*. 1(1), 6-14.
- Phua K. L., 2000. HMOs and Managed Care In Malaysia: What Can We Anticipate From The Experience Of Singapore And The United States? *Buletin Kesihatan Masyarakat*, 2000, 167-175.
- Richard M. Scheffler, 1999. The Journal of Mental Health Policy and Economics J. Mental Health Policy Econ. *Managed Behavioral Health Care and Supply-Side Economics* 2, 21-28.
- Robinson, R. and Steiner, A. 1998. *Managed Health Care: U.S. Evidence and Lessons for the National Health Service*. Open University Press.
- Sarah L. Zielinski, 2005. Journal of the National Cancer Institute. *Study Examines Effect of Managed Care on Quality of Care for Cancer Patients* 97 (4), 241.
- Sherilyn Tye, Kathryn A Phillips, Su-Ying Liang, and Jennifer S Haas, 2004. Health Research and Education Trust. *Moving beyond the Typologies of Managed Care: The Example of Health Plan Predictors of Screening Mammography* 39 (1), 179-206.
- Steven Udvarhelyi et al., *Comparison of the Quality of Ambulatory Care for Fee-for-Service and Prepaid Patients*, 115 ANNALS INTERNAL MED. 394, 394 (1991).
- T.P. Mathew, Menown, D. McCarty, H. Gracey, L. Hill and A.A.J. Adgey, 2002. European Heart Journal. *Impact of re-hospital care in patients with acute myocardial infarction compared with those first managed in-hospital* 24 (2), 161-171.

