The Effect of Demographic Factors on Utilizations of Health Insurance Services

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Abstract: The Objectives of this study is to determined and clarify the extent of the effect of demographic factors factors (Age, Gender, Income level, Educational level) (that affect the utilization of health insurance services) (Medical visit, Laboratory test,X-ray test,In-patient services, Emergency services, Drug utilizations) by the beneficiers of the health insurance services. The mode of the study consist of independent variable is demographic factors factors (Age, Gender, Income level, Educational level), and the dependent variable is the utilization of health insurance services (Medical visit, Laboratory test,X-ray test, In-patient services, Emergency services, Drug utilizations) . The population study consist of all patients who have health insurance and utilize the health insurance services in health organization (private and public health organizations) in Amman – Jordan) Simple random sampling technique was used to select respondents from the various Health organizations , (500) respondent was randomly selected from the study population, of which four hundred ten (462) was retrieved shaped .(.92%) of total study population. The model analysis of ANOVA (one-way analysis) was used to analyze data and test the mentioned hypothesis the (effect of demographic factors (Age, Gender, Income level, Educational level) on the utilization of health insurance services((Medical visit, Laboratory test,X-ray test, In-patient services, Emergency services, Drug utilizations . The model analysis of ANOVA (one-way analysis) show the following results : A- There is no significant effect of the Age ,the significant level is (.002) on the utilizations of health insurance utilizations at the(significant level ≤5%).B- There is no significant effect of the Gender, the significant level is (.008) on the utilizations of health insurance utilizations at the(significant level ≤5%).C- There is significant effect of the Income level, the significant level is (.001) on the utilizations of health insurance utilizations at the(significant level ≤5%).D- There is significant effect of the Educational level , the significant level is (.003) on the utilizations of health insurance utilizations at the(significant level ≤5%).

Keywords: (Age, Gender, Income level, Educational level), Emergency services, Drug utilizations

I.   INTRODUCTION

Health insurance may be the most important type of insurance you can own. Without proper health insurance, an illness or accident can wipe you out financially and put you and your family in debt for years. So what is health insurance and how does it work? Health insurance is a type of insurance that pays for medical expenses in exchange for premiums. The way it works is that you pay your monthly or annual premium and the insurance policy contracts healthcare providers and hospitals to provide benefits to its members at a discounted rate. This is how hospitals and healthcare providers get listed in your insurance provider booklet.

They have agreed to provide you with healthcare at the specified cost. These costs include medical exams, drugs and treatments referred to as "covered services" in your insurance policy.

The range of coverage for expenses varies depending on the type of plan, as will the restrictions. You can purchase the insurance directly from the insurance company through an agent or through an independent broker but most people get their insurance coverage through employer-sponsored programs.

The purchase of health insurance reduces the risks and unpredictability inherent in a consumer's cost of health care. Typically, a consumer selects a particular health insurance plan just before the start of the health insurance plan year and then pays a monthly premium to the health insurer. In return, if the consumer receives health care over the course of the year, the health insurer may pay some (or all) of the costs, depending on the details of the plan. For example, if the consumer does use health care, he or she often has to pay something out of his or her own pocket.

A.   Statement of the Problem:
The problem of this study is to determined if there is any effect of demographic factors (Age, Gender, Income level, Educational level) on the utilization. of health insurance services which consist of (Medical visit, Laboratory test, X-ray test, In-patient services, Emergency services, Drug utilizations).

B.   Important of the study:
The main important factor of this study is to determine what is the real demographic factors that affect the utilization of health insurance services (Medical visit, Laboratory test, X-ray test, In-patient services, Emergency services, Drug utilizations.

C.   Objective of the study:
The Objectives of this study is to determined and clarify the extent of the effect of demographic factors that affect the utilization of health insurance services by the beneficiers of the health insurance services.

D.   Hypothesis of the study:
There is effect of demographic factors (Age, Gender, Income level, Educational level) on the utilization of health insurance services (Medical visit, Laboratory test, X-ray test, In-patient services, Emergency services, Drug utilizations).

II.   LITERATURE REVIEW

Residents in Jordan actually enjoy quite a high standard of healthcare provision, even though this high standard is primarily focused around the Amman area. According to government data, the total expenditure in health care

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industry amounts to 7.5% of the country's GDP (or gross domestic product) in 2002. However various international health organizations have felt that the number is actually a lot higher, and indicated likely as much as 9.3% is spent on this particular industry. The two dominant players in Jordan are public and private institutions.

The country's Health Ministry takes primary charge of the national public program, with 1,245 primary health care centers and 27 hospitals under its belt -- that is equivalent to 37% of all hospital beds in Jordan; the military's Royal Medical Services operates hospitals which translate to 24% of the country's total; while the Jordan University Hospital contributes a further

3%. Private sector, on the other hand, makes up 36% of all hospital beds among the 56 hospitals built in the country. Furthermore, a milestone was established in the private sector in June 2007 when Jordan Hospital (biggest privately run and general specialty hospital in Jordan) was awarded JCI international accreditation. In general, patients pay a lot less for medical assistances in Jordan compared to other countries. Jordan was not able to escape the proliferation of human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) but the situation is under control. According to data released in 2003, less than one in every 1000 population is affected by this illness. United Nations Development Program further reported that Jordan has become malaria-free from 2001; the authority has done a great job in cutting down tuberculosis by half during the 90s, but the illness remains widespread and continues to be a challenge in the years ahead.

The 2006 bird flu outbreak did cast a shadow on the healthcare industry in Jordan though it was pretty short lived. Cancer, a non-communicable disease, is a major threat in this country. However, Jordan has achieved tremendous success in pushing for immunization among children in the last 15 years; it is believed that by 2002, vaccination and immunization has gone out to over 95% of children five and below. 7 in 10 Jordanians are covered by some form of medical insurance in 2007; the government's target is to have 100% coverage by 2011.Jordan also boasts of international world-class facility, such as King Hussein Cancer Center. This reputable specialized cancer treatment facility in Middle East is considered as one of the top-notch cancer treatment institutions the world has to offer. World Bank rated it as the best health care provider in the Middle East and one of the top five internationally. Expatriates from the world over flocked to this Kingdom to seek medical treatments. In 2008, a record 250,000 patients came from Egypt, Canada,

America, Syria, Sudan, Palestine and Iraq to help to generate more than $1 billion to the booming medical tourism. employees are generally obliged to participate in the public health insurance system, where coverage is universal, co-payments and deductables are moderate, and premia are based on income. However, they may buy private insurance instead if their income exceeds the socalled compulsory insurance threshold. Controlling for selection into private insurance we find a significant negative effects of being privately insured on the number of doctor visits. At the same time we find that being privately insured has a significant positive effect on self-assessed health. An explanation for this could be that doctors allocate more time to treating privately insured patients, which results in better treatment.

The health care system in New Zealand is predominantly financed with public funds. For the 12 month reporting period of 2002/2003 total national health expenditures were $10.9 billion, with 78 percent of those expenditures ($8.6 billion) covered by the New Zealand government. While the public sector is clearly the dominant payer, approximately 6 percent of national expenditures are paid for through private health insurance, with the remaining 16 percent funded by out-of-pocket payments from individuals/families. Although the overall percentage of funding through private insurance is small, approximately 40 percent of the adult population of New Zealand is covered by some type of private insurance, Private insurers sell two basic types of insurance coverage in New Zealand: major medical, which includes coverage for hospitalization and surgical care; and comprehensive, which covers primary care costs such as physician visits and outpatient prescription drugs, in addition to hospitalization and surgical care. Prior to recent changes, GPs were subsidised on a per-visit basis. It is important to note that it is the pre-July 2002 rules that are relevant to this work, since the data used were collected in 2002/2003.10 In 2001/2002, the Ministry of Health began implementation of the Primary Health Care Strategy. The objective of this strategy is to improve the health of New Zealanders through. The uninsured tend to consume expensive health care treatments when cheaper options are available. Weissman et al. (1992) find that the uninsured are much more likely to be admitted to the hospital for a medical condition that could have been prevented with timely care. Similarly, Braveman et al. (1994) estimate that the uninsured are more likely to suffer a ruptured appendix, an outcome that can be avoided with timely care. Dozens of similar studies are summarized in an Institute of Medicine (2002) report, and nearly all find a robust correlation between a lack of insurance and reliance on expensive, avoidable medical treatments. Some evidence also suggests that the uninsured are more likely to seek care in the ED than the insured (Kwack et al. 2004), and it is commonly assumed that uninsured patients visit the ED for non-urgent problems and contribute to ED crowding (Abelson 2008, Newton et al. 2008). The first of these evaluates Medicaid expansions. Dafny and Gruber (2005) estimate that Medicaid expansions led to an increase in total inpatient hospitalizations, but not to a significant increase in avoidable hospitalizations. The authors conclude that being insured through Medicaid leads individuals to visit the hospital more often and, potentially, to consume health care more efficiently.

Other papers study the effect of Medicare on health care utilization. Finkelstein (2007) studies the aggregate spending effects of the introduction of Medicare, and Card et al. (2008, 2009) study the effects of Medicare on individual health care consumption. All three papers conclude that Medicare leads to a substantial increase in health care consumption. One limitation of such studies is that individuals who gain health insurance through Medicaid and Medicare are often insured beforehand. Cutler and Gruber (1996) demonstrate that fifty percent of new Medicaid enrollees were previously enrolled in employer-

provided insurance plans. Similarly, Card et al. (2008) conclude that much of the increase in hospitalizations that occurs after people become eligible for Medicare is likely due to transitions from private insurance to Medicare rather than from no insurance to Medicare. Consequently, these papers do not isolate the causal effect of being uninsured on health care consumption, which is the object of interest here. The other limitation of studies focused on Medicare and Medicaid is that their estimates are based on the demographic groups at lowest risk of being uninsured. Precisely as a result of these two programs, only a small fraction of children or the elderly lack health insurance.

Most of the uninsured are non-elderly adults, and over half of uninsured non-elderly adults are between the ages of 19 and 35 (Kriss et al. 2008). Estimates of the effects of health insurance coverage on the near-elderly and children are unlikely to be very informative about the effects of insurance coverage expansions, as such expansions will disproportionately affect young adults. This study contributes to the literature on health insurance in several respects. First, it isolates the effects of uninsured status, avoiding contamination by transitions from private to public insurance. Second, it focuses on young adults, a group that is more representative of the uninsured population than either children or the elderly. Third, it introduces a corrected instrumental variables estimator for data based on a self-selected population, in this case, those who present at the hospital.

However, there exists little evidence that individuals shift the timing of health care visits in anticipation of gaining or losing insurance coverage. In an analysis of private insurance claims records, Gross (2010) finds no evidence that teenagers who lose coverage at age 19 consume more hospital visits or prescription medication in the weeks before they lose. Coverage. Card et al. (2008) find no evidence that individuals nearing age 65 postpone inpatient care in significant numbers until they qualify for Medicare, and Long et al. (1998) find little evidence of health care stockpiling for the general population.

III.   METHODOLOGY OF THE STUDY

The methodology of this study consists of the followings:

A- Study Model:

The study model was built according to literatures and previous studies, The model consist of the independent variables which consist of (Age, Gender, Income levl, Educational level, and Dependent variables which consist of (Medical visit, Laboratory test, X-ray test, In-patient services, Emergency services, Drug utilizations

The following model illustrates booth independent variable and dependent variable:
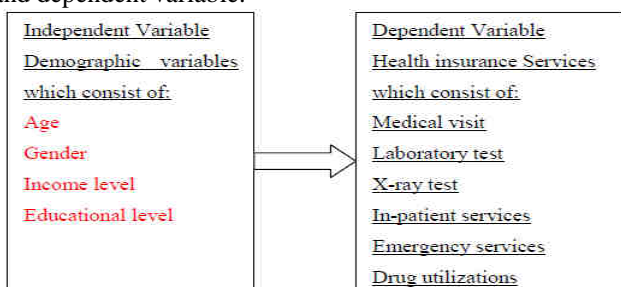
B- Study Population

The population study consist of all patients who have health insurance and utilize the health insurance services in health organization (private and public health organizations) in Amman – Jordan)

C- Study Sample:

The simple random sampling technique was used to select respondents from the various Health Organizations, (500) respondent was randomly selected from the study population.

The total number of population that the questionnaires were administered was (500) , of which four (462)) was retrieved shaped (92%) of total study population, Table (1) below overview of respondents characteristics.

Table (1) below overview of respondent's characteristics.

Detail	Frequency	Percentage (%)
Gender		
Male	239	52
Female	223	48
Total	462	100
Age		
1-14	83	18
15-30	42	9
31-40	51	11
41-50	76	16
51-60	97	21
>61	113	25
Educational Level:		
Less Secondary school	83	18
Secondary school	42	9
Diploma	60	13
Higher education	277	60
Total	462	100
Income level		
<300 JD	93	20
301- 500JD	275	60
501-800 JD	52	11
>800	42	9
Total	462	100

D-Study instrument:

Questionnaire was designed to collect data for this study, it contain personal characteristics of the respondent and group of Questions related to the hypothesis, Likert measurement was used to evaluate the respondent Questionnaire.

E-Validity and Reliability of study:

Validity: There is positive respondent from concerned qualified persons regarding the Questionnaire components.
Reliability: Reliability was tested through cronbach test alpha; the value test was 71%.

F -Data analysis:

The model analysis of ANOVA (0ne-way analysis) was used to analyze data and test the mentioned hypothesis the (effect of demographic factors (Age, Gender, Income level, Educational level) on the utilization of health insurance services((Medical visit,Laboratory test,X-ray test,In-patient services,Emergency services,Drug utilizations .

Independent Variable
Demographic variables which consist of:
Age
Gender
Income level
Educational level

Dependent Variable
Health insurance Services which consist of:
Medical visit
Laboratory test
X-ray test
In-patient services
Emergency services
Drug utilizations

G- Test Hypothesis:

There is effect of demographic factors (Age, Gender, Income level, Educational level) on the utilization. Of health insurance services (Medical visit, Laboratory test, X-ray test, In-patient services, Emergency services, Drug utilizations ($\text{significant level} \leq 5\%$).

The model analysis of ANOVA (one-way analysis) show in Table (2) below:

Dimension	Df (degree of freedom)	F	(Significant level ≤5%)
Age	5	8.168	.002
Gender	1	4.826	.008
Income level	3	9.543	.001
Educational; level	3	7.461	.003

The model analysis of ANOVA (one-way analysis) shows the followings:

A- There is no significant effect of the Age, the significant level is (.002) on the utilizations of health insurance utilizations at the(significant level ≤5%).

B- There is no significant effect of the Gender, the significant level is (.008) on the utilizations of health insurance utilizations at the(significant level ≤5%).

C- There is significant effect of the Income level, the significant level is (.001) on the utilizations of health insurance utilizations at the(significant level ≤5%).

D- There is significant effect of the Educational level, the significant level is (.003) on the utilizations of health insurance utilizations at the (significant level ≤5%).

IV. CONCUSSION

According to ANOVA (One-way analysis) there is no significant effect of Gender on the utilizations of Health insurance services at the (significant level ≤5%). But there is significant effect of Age, educational level and income level on the utilizations of Health insurance services at the (significant level ≤5%).

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