



Induced demand in veterans

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ABSTRACT

Health is a familiar component for policy makers around the globe. Health services are provided in different qualities and quantities. The effect of complementary insurance and health care services to vulnerable individuals such as chemical victims and accurate identification of their needs and physician induced demand is a critical issue. This study was conducted to address the effect of complementary insurance on induced demand among 25% or more chemical veterans in Nesar-e- Deereh village, in Kermanshah province, in the first half of 2009. A cross-sectional study was performed in the first half of 2009. Data were collected through a two-part questionnaire, interview with veterans (n=300), general practitioners (n=8) and specialists (n=12). The validity of the questionnaire was verified by obtaining expert opinions of non-contracting specialist and general practitioners, insurance officers, and university professors. Data were analyzed by descriptive tests using the SPSS software. All primary care services were provided free of charge by three general hospitals, two laboratories and three specialist pharmacies and all individuals were covered by complementary insurance. Sixty percent of veterans stated that they visited a specialist only to make sure that they are not sick and that they required check-up tests like CT scanning and etc. According to pharmacists, 85% of prescribed medications lack a therapeutic rationale. According to 44% of patients, general practitioners were more likely to prescribe expensive medications and 38% of patients stated that general practitioners sensitize them to check their health by various treatments and repeated visits. The fact that care is provided free of charge has created this attitude among some that they should make the most of the service as long as physician visits, medication and facilities are available freely. Induced demand can be largely reduced by changing patient attitude, wise use of insurance and more strict supervision of contracting physicians.

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Introduction

Supporting the public in disease costs and providing justice in financial sharing in these costs are major goals in health systems (1). Induced demand is sale or provision of unnecessary service to health system customers that is induced by recommendation of experts inside the system (2).

Induced demand arises due to various economical and structural factors, health market, behavior of service recipients, and providers. Although induced demand mostly focuses on referral and counseling services, in some cases unnecessary services are presented at the first level of service and sometimes concern for patient encourages the health care worker to perform extra and unnecessary service (3).

This can increase the demand and disturb the demand-supply balance in the health market. This can not only impose additional costs on the patient and demand more time, but can also lead to medical side effects through wrong diagnoses and treatments. Financial loss that ensues from induced demand becomes more clear when it is viewed in a national level and especially where the government pays subsidy for health services and medications (4).

Factors influencing induced demand include individual squeals (capital loss, waste of time, pain suffering and stress, and side effects arising from unnecessary medication) and social sequels (loss of national resources by assignment of subsidy to health services, emergence of microbial resistance, development

of a black market for health) (5). Control of influencing factors is one of the major responsibilities of governments and especially medical and welfare organizations. The presence of multiple insurance systems in Iran and lack of a strong automation encourages people to have several insurances. Presence of complementary insurance for special groups and lack of supervision for reasonable use of services, consciously or unconsciously, deviates patient and provider tendency away from suitable use of services. The mentioned factors led the authors of this paper to conduct a study to investigate the use of insurance by 25% or more chemical veterans in Nesar-e- deereh village in the first half of 2009.

Methodology and Data

A cross-sectional study was performed on all 25% or more chemical veterans who hold a special veteran card issued by the Foundation of Veterans and Martyrs Affairs of Kermanshah province in Iran in the first half of 2009 (March, April, May). Data were collected through a two-part questionnaire (demographic data, items addressing the number of visits to medical centers, cause of visits, and number of induced demand from the governmental organizations), observation and interview with patients referring to medical centers in Sare Pole Zahab, Eslam Abade Gharb, and Gilanegharb that are responsible for providing care for veterans with a complementary insurance. These medical centers include eight general practitioners, 12 specialists, six pharmacies, one physiotherapy center and three

dentists. Eventually additional data were gathered by reviewing the medical books, random observation and study of family drug basket and interview with 300 veterans. The objective of study was completely explained to the participants and finally all participants who had been offered an unusual option by the care provider entered the study. The validity of the study was verified by obtaining the expert opinions of contracting generalists and specialists, insurance experts and university professors. Data were analyzed by the SPSS software using descriptive statistics.

Results

There were 190 female veterans and 110 male veterans. Table 1 shows the age distribution of the studied individuals.

Tanle1- Age and sex distribution of chemical veterans under study

Table 2- Supplier –induced demand on veterans by age

The researchers tried to gather some data about demand induced by specialists, pharmacists, and generalists through interview with veterans of different age; these data are shown in table 2.

As shown by table 2, there has been no incident of demand induced by laboratories. However in the age group of 30-40, that comprises 71 patients who all visited a physician at least once during the study period, generalists induced the highest amount of demand. Similar results were stated by other age groups. The highest rate of induced demand belonged to generalists (92%) followed by specialists (58.6%) and pharmacists (38.3%, through sale of surplus medicinal and hygienic products) (table1).

As stated by participants, in some cases veterans visited the physician for such simple reasons as common cold or backache, but suffered other conditions due to prescription of unnecessary medications and the special condition that veterans have. some participants declare that a number of physicians force them to continue follow up by demanding unnecessary testing, emphasis on further visits and underscoring trivial illnesses that the patients has previously experienced (some state that specialists did not prescribe any medication at all in some instances). Others state that in case they did not refer to contracting specialists for persistent follow up the therapeutic method would be very different from that presented by non-contracting specialists. According to the veterans interviews, pharmacy personnel would sell them unnecessary items such as cold medication, bandage, cough syrup, tooth brush, ointments or even shampoo despite they stated no need for those items.

On the other hand, 34.4% of veterans requested medications that were unnecessary. For other services the percentage is as follows: 52.1% for laboratory testing, 6.2% for CT scanning, 11% for MRI, 1.7% for Cesarean delivery, 6.5% for physiotherapy, 20.3% for medical certificate, 13.8% for tooth polishing, and 4 for unnecessary tooth filling. These demands were induced by veterans on care providers of all levels. (figure 1).

Figure 1- Veteran-induced demand on care providers in Nesar-e- deereh village in the first half of 2009

Conclusion

In an article named “ costly diagnoses and the challenges of the health system”, in 2009, Rashidian introduces a number of problems including lack of decision making system for insurances, unfair physical distribution of medical facilities, lack of data regarding complementary insurance coverage for limited diagnostic services, the problem of direct pay by patient, independence of diagnostic and imaging centers for more

income and the tendency of patients t use their services, advertisement and in cases exaggeration by clinical and paraclinical centers.

On the other hand, it should be noted that in the majority of cases, care providers and especially doctors, induce demand in an effort to improve quality of care . This should be studied thoroughly and resolved by proper measures. For instance, induced demand may be due to deficient skill or knowledge that can be corrected simply. The reverse is also true i.e. demand induced by veterans can also be due to lack of adequate knowledge regarding their condition. As mentioned before, constant assessment of demand and supply and reason of repeated visits by veterans can dramatically reduce induced demand.

Gritten and Sorensen published a study in 2001 that addressed the competition by governmental and contracting physicians in Norway. They concluded that physicians who received per case payments were more likely to induce demand (7); this can be in line with the findings of this study.

In a study named “estimation of the function of insurance demand; case study: Iran Insurance Company” in 2007, Hadian mentions that the most important factors determining demand in these insurances are expected per capita health cost income and expected inflation rate.

Point and cyclic average of income elasticity of demand has been estimated at 7 and 0.08 percents, respectively and shows that complementary insurance has a very limited income elasticity. Expected elasticity of health costs is estimated at 0.2% that confirms the limited elasticity of demand for complementary insurance. The results are in general agreement with the results of the present study (8).

In the light of differences in health needs among individuals and on the other hand the mixing of financial motivations and false demands a solid frame work is expected for the patients and providers to use complementary insurances correctly around the world. Our recommendations include improvement of attitude and knowledge, use of electronic cards, grading of patients with complementary insurance, and evaluation of physicians and paraclinical personnel using modern methods.

Table 1: Distribution of chemical veterans based on age and sex in the first half of 2009

Age sex	30-40 years old	41-50 years old	51-60 years old	60and above	sum
male	18	62	20	10	110
female	53	83	33	21	190
sum	71	145	53	31	300

Figure 1: Induced demand from chemical veterans from physicians and health delivers in first half of 2009

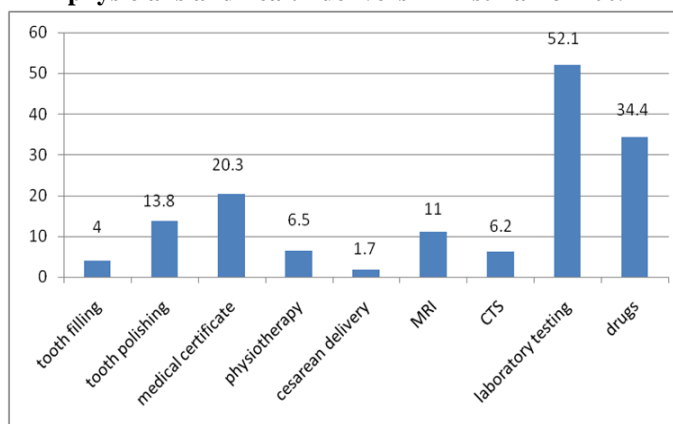


Table 2: Induced demand from health delivers on veterans based on age

induced demand age	Professional physician		pharmacy		laboratory		General physician	
	frequency	percent	frequency	percent	frequency	percent	frequency	percent
30-40	35	49.2	17	24.2	0	0	68	97.1
41-50	83	57.2	47	32.4	0	0	128	88.2
51-60	39	73.5	22	41.5	0	0	50	94.3
60 and above	19	61.2	29	93.5	0	0	30	96.7
sum	176	58.6	115	38.3	0	0	276	92

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