



Research Article

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Evaluation of The Effects of Implementation of Health Reform Plan On Out – Of-Pocket Payments in Coronary Arteries Open Heart Surgery in Private Hospitals in Shiraz

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ABSTRACT

The effect of health system reform plan on services sector of private section is very important. This study investigated the effect of implementation of third phase of health system reform plan on out of pocket payments and other expenditure related to open surgery of coronary arteries in Shiraz private hospitals. This study done in form of before and after and then by using data from 3 hospitals in which open heart surgery taken places. Sample content was 15 patients and data was collected in summer 2014& summer 2015. These finding show that after health system reform plan after controlling confounding variables, out of pocket payments in private section for open heart surgery of coronary arteries increased significantly. Also Salamat insurance premium ads overall costs of services increased significantly. But no increase in Salamat complementary expenses was seen. These findings show that reform plan couldn't help the financial protection of patients on open heart surgery and only health system expenses increased.

Keywords: open heart surgery, health system reform plan, private section, Fars province.

INTRODUCTION

Health is among the most important human needs and among major factors of economic development in each country. One of the most important governments duties is financing the health system. In financing health services, government should behave so that patients have no difficulty than troubles related to their sickness.

Third party payments and government subsidized assistance are of among these guidelines. If people and family take the responsibility of paying health expenses on their own shoulders, in long time, not only their disease not alleviated, but also financial pressure of these expenditures will hurt them.

Out of pocket payment is person directly payment of money from his own pocket (2). In receiving health care services, paying out of money causes lots of difficulty for both people and society. Statistics shows that yearly 25 million persons fall pray to poverty as the result of paying care services expenses.

In 2010 studies show that near 2/1% of Iranian families encumbered by catastrophic expenditure.

Also, statistics shows that in 2013, 0/ε of rural families and 3/7 urban families was among those who has fallen bellow the poverty line as the result of curative cost payments.

High amount of out of pocket expenses, make policy makers to seek ways to decrease payment costs. So in reform plan paying out of pocket expenses decreases so much, by paying subsidy to public hospitals for those who aren't under insurance coverage and also paying subsidies to health care services.

In next step, more actualizing curative expenses and implementation of the book " values and health care diagnostic and curative services of republic of Iran " doctors and health personals motivation increased. On the other hand, by controlling payments in private section and not paying subsidy to provided services, government decided to control this part by complementary insurance.

Open heart surgery is in progress abundantly in our country, either in private or public section and many of the insured should do these deeds, in the condition that are forced to refer to private section in order to receive more reliable services with higher quality..

As in private section no subsidies paid and because of multiple curative tariff, payment procedure in this part manifolded. Studying the effect of health system reform in private section is important, because many patients referred to this section don't have contemporary insurance

(8). The third phase of health system reform plan directly affect the private section. New tariff and new book " relative value of services " was implemented in this phase, executed since September 2014. This study aims to probe the effects of implementation of health reform plan (the book " relative value of services an new tarrif package ") on out of pocket payments in coronary arteries open heart surgery in 3 private hospitals in Shiraz.

EXPERIMENTAL SECTION

Current study is a cross-sectional study done in form of before and after to investigate the effects of health care system reform plan on out of pocket payments of patients under coronary artery open heart surgery therapy in Shiraz private hospitals.

Inclusion criteria was being insured in diagnostic . curative services and being on heart surgery. The other insurances (social and armed insurance) was ignored because out of pocket expenses and payment premiums in those insurances were different from salamat insurance. All samples referred to these private hospitals, entered this study in summer 2014(before implementation of relative value of services books a new tariff) and in

Summer 2015 (after implementation of this book), for receiving services.

Samples considered in before reform plan study includes 73 open heart surgery cases and samples considered in after plan include 76 cases of open heart surgery.

Before and after estimation used in this study is a multiple variable regression pattern and other variables such as hospital, type of salamat insurance used and gender used in the form of controlling variables.

Also, in this study payment percentage and amount of out of pocket expenses calculated and salamat insurance premiums compared with complementary insurance premiums.

RESULTS

In 150 samples investigated in this study, there were 48 women and 102 men. 50 persons hospitalized in central hospital, 55 persons in Dena hospital and 45 persons Ordibehesht hospital.

In table 1 descriptive findings about costs in a Rial is shown. As it can be seen, before the third phase of reform plan, out of pocket expenses for open heart surgery was 1004 81354 and after implementation of health service plan increased to 126724191. Insurance payment premiums, also, was 51272715 and after the reform plan increased to 111579555 complain.

Insurance payment before reform plan was 118278811 rial and after health reform plan increases to 131675395 average, relative costs increased from 161 k to 216 k.

This increase is regardless of each activity done in each services. out of pocket payment percentage, The third phase of health care plan reform was 38/6% and after its implementation decrease to 36/8%. Salamat insurance payment percentage increase from 18/9% (before implementation of reform plan third phase) to 33/6 and amount of complementary payment decrease from 43/4% to 38/5%. A difference between total percentage of different section payments and overall costs of health was seen which was because of the discounts given to patients.

Table 1 : descriptive finding of study

After health care reform plane		Before health care reform plan		
Percentage	Rial	Percentage	Rial	
36/8%	121724191	38/9%	100481354	Out of pocket payment
33/6%	116579555	18/9%	51272775	Base insurance premium
38/5%	131675395	43/4%	118278811	Complementary insurance pre
	347504092		267720963	Overall health costs

Table 2 shows the regression pattern estimation about differences between out of pocket payment and payment after third phase of health care reform plan. In second column in the table, the regression pattern and dependable variables of out of pocket payment is offered. Standard deviation is shown in third column. Statistically if variable modulus of reform plan be significant, shows that after controlling confounding variable, there will be significant difference in out of pocket payment. AS it is clear from the table modulus of this variable is positive and significant. It means that paying out of pocket after implementation of third phase of reform plan in heart open surgery services, has been increased also in people with self-insurance, in total two periods, paying out of pocket was more and in other classes was less. No significant relationship between hospital, gender and amount of out of pocket payment was seen.

Table2: Regressive pattern Estimation study about differences in out of pocket payment before and after implementation of third phase of health reform plan

significant	Deviation standard	modulus	variable
0.023	18441519	42429619	Reform plan
			Type of insurance employment
0.099	36899137	97678486	Self insured
0.007	26886816	-73152242	Other classes
			Gender-woman
0.0141	19648827	29115835	man
			Dena hospital
0.561	21928984	-12774462	Central hospital
0.280	22514078	24438131	Ordibehesht hospital
0.01	21108340	73029501	Fixed coefficient

Table 3 shows the after and before regressive pattern estimation about insurance organization payment premiums, complementary payment premiums and overall costs of salamat insurance, in this table each variable modulus and its significance is shown. For each variable if statistic p be less than 5%, then there is no significant relation between this variable and out of pocket payment. As it seen in the table health reform plan caused increase in salamat insurance overall costs related to open heart surgery. Salamat insurance payment premiums increased after plan reform plan. No significant relation between complementary insurance premiums, after and before the reform plan, was seen. Also no significant relation in control variable in salamat insurance overall costs was seen.

Just in self insurance complementary insurance decreased and in other classes always has been increased.

Table3: regressive pattern estimation about difference among other parts premiums, after and before third part of health care reform plan

Complementary insurance premiums	Salamat insurance premiums	Overall salamat costs	variable
0/698	-6151926		Reform plan
			Type of insurance

CONCLUSION

Findings from this study show that, although after implementation reform plan, out of pocket premiums decreased, but the amount of pay out of pocket expense has been increased significantly. The aim of health care system is to protect people against dangers and troubles caused by suffering from a disease .

But as a result of increasing the amount of out of pocket expense, this aim has not been achieved .

In this period salamat insurance payments, has been increased significantly. These findings are all against care ministry authorities declaration about decreasing in out of pocket payments. By changing services tariff and making the more actually proceedings the amount received from provided services by health personals and private hospital has been increased significantly. This study findings proved that overall costs of by pass surgery after health care reform plan increased so much.

Care ministry explained these raises a tool for improving the quality of providing services. It is clear that in private section, providing services accompanied with good quality and more improvement of quality in private section is more in the interest of service providers than customary and is not an effective cost. Bagheri Lankarani and his partners in Shiraz public center find that mean percentage of patient in hospital services after implementation of reform was decreased from 25% (before implementation) to 15% . Also Olyamanesh in his research by investigating the patient participation mean present ago of patient payment in hospital services after implementation of reform was decreased from 25% (before implementation) to 15% . Also Olyamanesh in his research by investigating the patient participation rate , amount of basic insurance and salamat subsidy found that In people have not used reform plan for any reason about 30% of costs were directly paid out of pocket and the rest covered by salamat insurance ,while in those who are involved in health system reform plan about 87.5 costs paid by insurer organization, 9% by reform plan credits only 4% is paying out of pocket. salamat service costs caused much loss and damage to salamat insurance. Their failure in paying health costs ,

Will cause irretrievable damages to salamat insurance and cause its bankruptcy . strategic buying of insurances from health system and exiting health system financing can be so help full (12) . Educating and developing more health personals and more doctors to reduce mono polization and increase completion in health services can help decreasing physician services costs. Putting more emphasize on the social determinants of health and making an intersectional cooperation to improve these determinants and considering sanity inside therapy is very important . This study investigates the effect of Iran health system on an important therapy in private section . Finding of this study is very important for Iran health system policy makers. There were some limitation in this study , too . low sample content of study was first limitation which caused difficulty in study . second , discounting payments to patients after implementation of health system reform plan , which hinder more accurate cost items . and finally , this just three hospitals were investigated in this study , which makes its generalizability hard . For future studying investigation of paying out of pockets in other sections of health system recommended .

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