

# 2013

## Partnership for Social Initiatives

# UTILIZATION AND AFFORDABILITY OF HEALTH SERVICES IN DIFFERENT HEALTH SERVICE PROVISION MODELS

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## POSITION PAPER # 2



**USAID** | **GEORGIA**  
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**Policy, Advocacy, and Civil Society Development in Georgia (G-PAC)**

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საჯარო პოლიტიკის, ადვოკატირებისა და სამოქალაქო საზოგადოების განვითარება საქართველოში

## TABLE OF CONTENT

<b>INTRODUCTION .....</b>	<b>3</b>
<b>PROBLEM STATEMENT.....</b>	<b>3</b>
<b>RESEARCH OBJECTIVE .....</b>	<b>4</b>
<b>ANALYSIS OF LEVEL OF SERVICE INTEGRATION .....</b>	<b>5</b>
HEALTH SERVICE PROVIDERS, OWNERSHIP AND STRUCTURAL INTEGRATION .....	5
DEGREE OF INTEGRATION.....	6
<b>ANALYSIS OF TOTAL HEALTH EXPENDITURE.....</b>	<b>6</b>
<b>SUMMARY OF TOTAL HEALTH EXPENDITURES BY MODELS .....</b>	<b>10</b>

## INTRODUCTION

Since independence the health care system of Georgia is in a regular reform state. The first big-bang reform was initiated back in 1996 when the separation of the health care financing, stewardship and provision has been introduced. In 1999 the Government embarked on the privatization of the sector. Since then all health providers became subject to the commercial law, some hospitals and outpatient clinics undergo the privatization though stocks of the most of the facilities were still under the state ownership. Shortly after the Rose revolution the government came up with two main reform plans. The first one was a massive hospital privatization plan which aimed at downsizing and upgrading of the hospital sector. As a result some of the hospitals were privatized, though the reform has been put on hold as a result of the economic downturn and Russia -Georgia conflict in 2008. Another reform plan was the novel approach for ensuring service provision to the poorest layers of population. Given reform was mainly directed towards establishing and institutionalization of the Public Private Partnership in the sector. More specifically, in 2007 the state financed health vouchers distributed to the poor were exchanged by the latter into the health insurance policy being administered by the private insurance companies (IC). This reform showed to be successful in ensuring improved access of poor to the health services as well as decrease of out of pocket payments according to the Health service Utilization and Expenditure Survey 2010. In 2010 the government introduced certain changes in this scheme, instead of providing free choice to the poor for the selection of the IC, decided to tender according to the medical-administrative areas and package it with the construction of the new hospital infrastructure. Based on the tender results, the ICs took responsibilities to ensure service provision to poor as well as by end of December - June 2011 operation of the new hospitals. In 2011 the Government decided to hand over the full responsibilities of the health service provision to the ICs in their respective medical areas starting from January 2012.

According to the given reform the ICs are requested to:

- a. Right size physical infrastructure and human resources in their respective areas,
- b. Ensure continuous affordable and quality service provision to entire population, including beneficiaries of the state insurance programs and corporate insurance clients ;
- c. Operationalization of the new hospital infrastructure;
- d. Administration of selected state health programs.

## PROBLEM STATEMENT

At present three possible provider services organization modalities have been established:

- a. **Model A** - where all service providers except village ambulatories are owned by the IC except of village ambulatories and have responsibility of service provision to entire population including the state insured;  
However village ambulatories are contracted by IC.
- b. **Model B** - where the IC bears the responsibility of providing continuous quality health care to entire population and does not own medical facilities, but has to contract other big hospitals owned by non-insurance private investors and village ambulatories
- c. **Model C** - where the IC is not requested to ensure service provision to entire population of the medical area rather than beneficiaries of state and private insurance programs. In this model IC may or may not own selected health facilities.

In order to ensure quality and comprehensive health service provision to the population in respective geographical areas Health System Operators (HSO) are required to organize services in a way that meets stated objectives.

The international evidence suggests that integration of services is the most effective model that produces quality continuous health services. An integrated delivery system (IDS) is a network of health care providers and organizations which provides or arranges to provide a coordinated continuum of services to a defined population and is willing to be held clinically and fiscally accountable for the clinical outcomes and health status of the population served. IDS may own or could be closely aligned with an insurance product.

The IDS represents a vertically integrated structure, that is, it brings together healthcare organizations such as hospitals, medical groups and other service providers, uses aligned incentives and is frequently linked to insurance plans.

Main objectives of the IDS are quality improvement and cost reduction. Specifically, i) Reducing administrative/overhead costs; ii) Sharing risk; iii) Eliminating cost-shifting; iv) Outcomes management and continuous quality improvement; v) Reducing inappropriate and unnecessary resource use; vi) Efficient use of capital and technology. . Integration can enable the system, through coordinated activities, to meet the same level of demand with less capacity than that required by individual facilities. A larger scale of operations also allows for increased productivity, lower staffing requirements and reduced unit costs through joint activities.

## RESEARCH OBJECTIVE

In order to meet stated objectives two types of surveys were administered. The first one was Health expenditure and Utilization Survey (quantitative tool) and the second, qualitative survey with the overall purpose to describe different service provision modalities as they are formed at present and analyse

its implication on populations' access, affordability and satisfaction. The latter carefully assessed three different institutional modalities of health service provision schemes, analysed strength and weaknesses of each model. The research revealed that The Governance, management, finance, organization of medical and clinical management alongside with quality assurance measures applied by the Models defines degree of integration. The latter in its terms effects access and affordability of services for the population. The Table 6 clearly illustrates that Model A, though being partially integrated, ensures financial access to the health services for insured patients whereas other two models with fragmented governance, management and service provision fail to optimize expenditures. This is evident by the

**Table 1: Status of Integration and Expenditures**

INTEGRATION OF FUNCTIONS	MODEL A	MODEL B	MODEL C			
Organization	PI	FR	FR			
Management	I	FR	FR			
Finance	PI	FR	FR			
Medical Management	PI	FR	FR			
Clinical Management	PI	FR	FR			
STATUS OF INTEGRATION	PI	FR	FR			
TOTAL HEALTH EXPENDITURE	NI	IN	NI	IN	NI	IN
THE	H	L	L	H	L	H
OP	H	L	L	H	L	H
Pharmaceutical	H	L	L	H	L	H
Hospital	H	L	L	H	L	H

THE - Total Health expenditure; OP- Out-patient; PI – partial Integration; FR – Fragmentation  
 NI – non-insured; IN – insured, H – high; L – low

average per case expenditures for hospital and out-patient services. In this dimension Model A has certain comparative advantage over its comparators.

In order to justify reliability of above stated findings in the second phase of research the decision was made to study in addition two “Model A” districts operated by **different** Health Operators (Insurance Companies). The comparison of results can reveal whether degree of integration affordability and access to services.

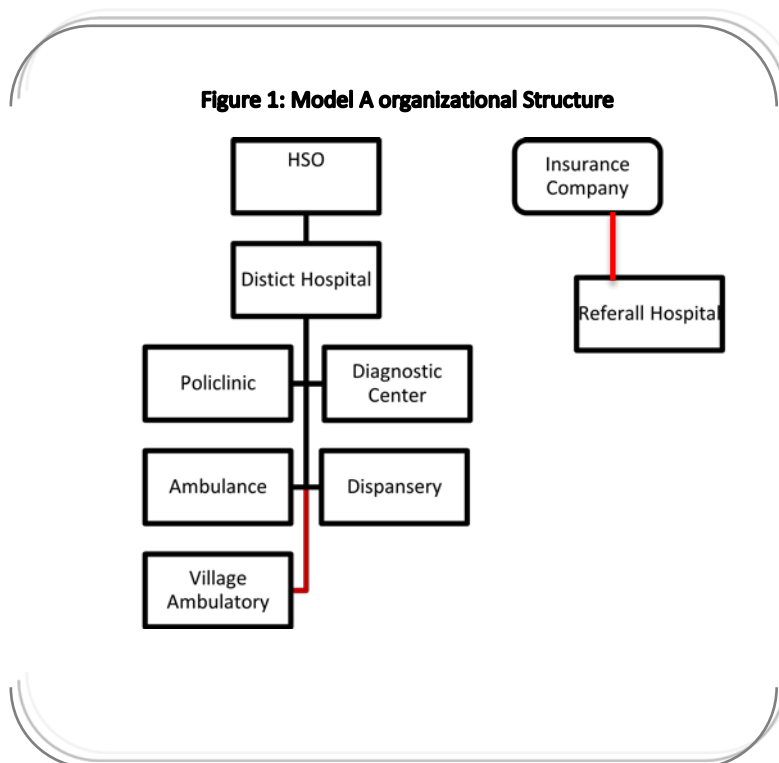
With this objective in mind the local health expenditure and utilization survey along with qualitative research on service organization and assessment of degree of integration was carried out.

## ANALYSIS OF LEVEL OF SERVICE INTEGRATION

### HEALTH SERVICE PROVIDERS, OWNERSHIP AND STRUCTURAL INTEGRATION

Model A represents a typical district health provision system. The model is governed by the Health System Operator (HSO). It owns and operates one general hospital with the bed capacity of 15 – 60 beds. The services from district polyclinic which was a separate legal entity has been merged and consolidated in the district hospitals. All diagnostic services, women’s consultation and emergency ambulance services (EMS) are also integrated in the hospital and owned by the HSOs.

Though village ambulatories remain as separate legal entities, are contracted by the HSOs for the provision of outpatient services to the population close to their residence. All village ambulatories are staffed with certified Family Physicians and Family nurses and fully equipped.



The Referral Hospitals (RH) is not part of the model and thus the HSOs do not have any formal relationship with them to ensure patient transfer for specialized qualified services when deemed necessary. In cases if the patient is insured, transportation and following treatment of patients are organized by respective Insurance Company and the HSO does not have any decision making power.

In case of non-insured patients, according to the MOLHSA regulations the

hospital is requested to contact “Medical Catastrophic Services” which organizes transfer of patients to the specialized referral hospital. This rule is applicable only in case of hospitalized patients whereas for non-hospitalized ones are transferred to RH by the EMS of the HSO.

## DEGREE OF INTEGRATION

Table 2: Degree of Integration

CHARACTERISTICS	DISTRICT 1	DISTRICT 2	DISTRICT 3
<b>FINANCE</b>			
Integration of financial streams on each level	Yes	Yes	Yes
Capitation Funding	Yes	No(Yes)	No
Other Methods of reimbursement	No	No	No
Incentives	No	No	No
<b>MEDICAL MANAGEMENT</b>			
Case Management	Yes	Yes	Yes
Disease Management	No (Yes For Certain Diseases)	No	No
Discharge Management	Yes	Yes	Yes
Referral Management	Yes	Yes	Yes
Pharmaceutical Management	Yes	Yes	No
Utilization Management	Yes	Yes	Yes
<b>QUALITY MANAGEMENT</b>			
Quality Assurance Teams available	Yes	Yes	Yes
QA team members trained ( specific training)	No	No	No
QA strategy and plan available	No (Yes)	No	No
QA methodological guidelines available	No	No	No
QA performance metrics maintained	No	No	No
<b>CLINICAL MANAGEMENT</b>			
Guidelines and Protocols	Yes	Yes	Yes
Performance Management	Yes	Yes	Yes
Team approach to coordination of care	No	No	No
<b>SUMMARY</b>	<b>Partially Integrated</b>	<b>Partially Integrated</b>	<b>Partially Integrated</b>

Assessment of the main functions of the model in all studied districts revealed that Model A is partially integrated and integrates all financial resources, receives funding on the capitated basis, practices elements of medical management such as case management, discharge management, utilization and pharmaceutical management.

Moreover, the model has established service quality assurance mechanism, though not yet fully implemented, uses clinical guidelines and protocols as well as monitors compliance and measures performance.

The level of integration achieved at present in the Model A positions it to be more efficient and effective in delivering services to population.

## ANALYSIS OF TOTAL HEALTH EXPENDITURE

The difference in total per capita health expenditure by districts with Model A represents only 1-2 GEL per capita per year. It is notable that about 15% - 20% is spent on outpatient services. Though still low it is higher compared to other two models.

The share of expenditures on medicines remains to be the higher cost center in all three models, however “Model A” demonstrates lower expenditures (40% - 45%) in comparison to Model B and Model C (54% and 52% respectively).

Another comparative advantage of the Model A is proved by lower share of in-patient expenditures (5%-6%) in contrast to other two models where the share of total hospital expenditure represents 14%.

Figure 2: Per capita THE per year (GeL)

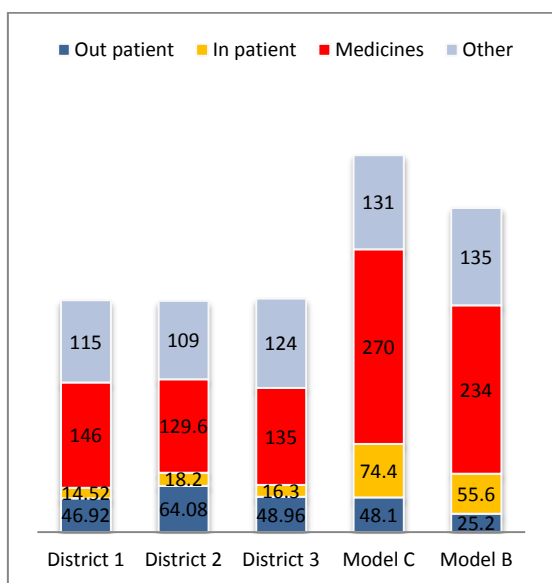
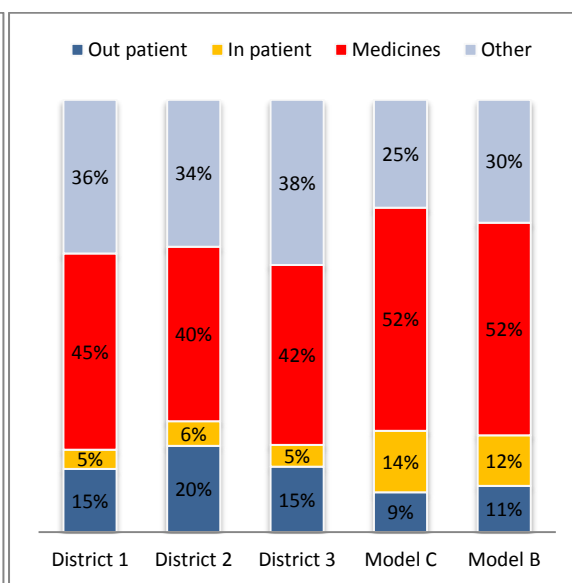


Figure 3: Share of per capita THE per year per service type



Thus the patients in Model A spend almost three times less on in-patient services than in other two models.

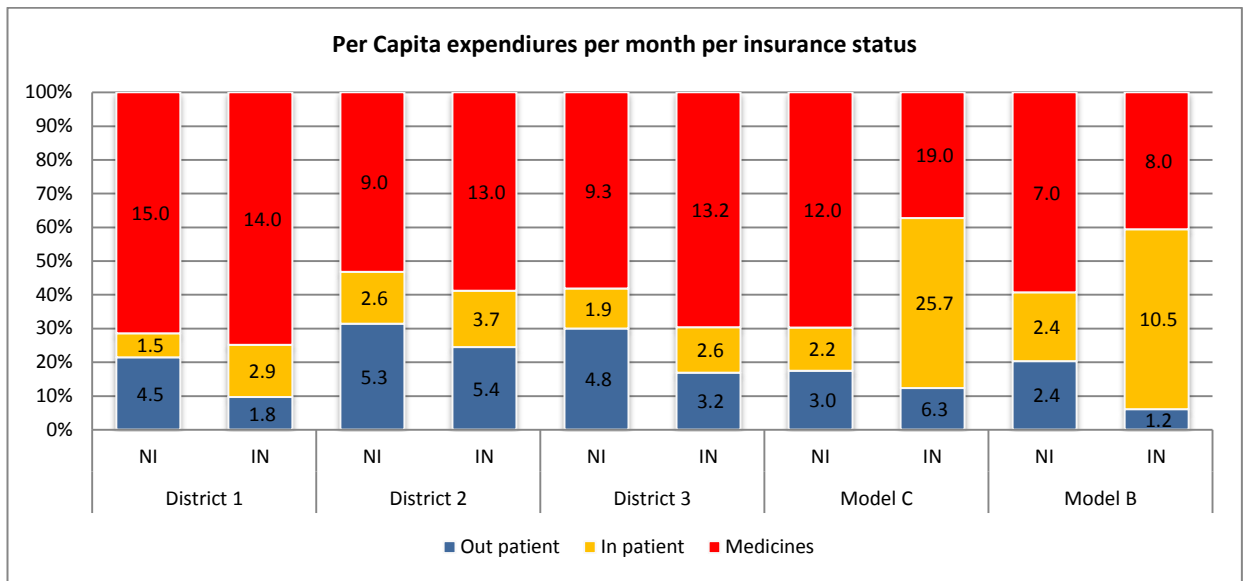
The study also revealed that trends for per capita expenditures on different types of services are similar in Model A for non-insured (NI) and Insured (IN) Individuals (Figure4). Namely, non- insured spend i) more on out-patient services, iii) less on in-patient services and more on medicines in the Model A than in other two models.

This speaks about either higher utilization of outpatient services, or higher costs of services. The reasons behind the finding will be discussed further in the report.

The latter can be explained by better prescription practices based on utilization of clinical protocols and recently introduced quality assurance mechanisms in Model A.

On average higher outpatient expenditures are observed in Model A for insured (Figure 5) compared to other two models. The latter could possibly be explained by higher utilization of these services and higher costs of treatment, ability of the model to maximize utilization of serves as well as provision of treatment at the outpatient level.

**Figure 4: Per Capita expenditure per month per insurance status**



Triangulation of findings from both quantitated and qualitative surveys revealed:

- Utilization of outpatient services in Model A represents 60% for insured and 45% for non-insured, which is higher than in Model C for both insured and non-insured (Insured 48% and non-insured 35%) and higher than in Model B (41% insured and 32% non-insured).
- Both insured and non-insured receive their first consultation with specialist working at the outpatient settings in the Model A and Model B, while in Model C for the first consultation both types of patients more utilize family physicians and specialists at the polyclinic level. In case of Model A patients referring to the specialists at hospitals is explained with the setup of the system, polyclinic department being fully integrated into the hospital structure, thus the outpatient department of the hospital is considered as a first point of contact. The village ambulatory level is bypassed by the patient and first contact place is outpatient department of hospitals. This health seeking behavior may somewhat explain high level of expenditures for the outpatient services in Model A.
- 84% of insured patients in Model A are officially referred by physicians for additional services, whereas in Model B and Model C this represents only 42% and 46% respectively. The secondary consultations for insured patients are the lowest in the Model A. Ability to manage outpatient referrals has been confirmed by the qualitative study as well. The Model A widely applies case management practice for insured patients. The non-insured mostly apply self-prescribing practices in all three models. Patients seek the first consultation with the specialists at hospital's outpatient department and are officially referred for additional services. The latter speaks about Model A introducing the gate keeping function.
- The lowest average per case expenditure on total outpatient services including the diagnostic services has been recorded in all three districts operating under Model A for insured patients (Table #3). Though it is notable that for non-insured average outpatient expenditure per case is almost 1.3 times higher than for insured, possibly due to hyper-diagnostics as referrals for the secondary consultations are 1.5 times higher for non-insured than for insured. The Model A utilizes different price lists for insured and non-insured and is selective in applying case management practices for outpatient services.

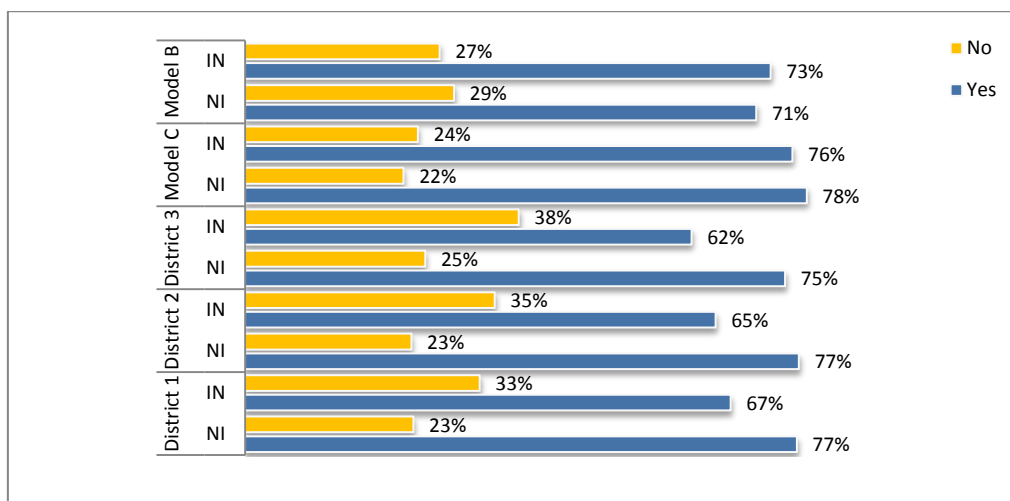


**Table 3: Average expenditures per case by insurance status**

	District 1		District 2		District 3		Model C		Model B	
	NI	IN	NI	IN	NI	IN	NI	IN	NI	IN
Out patient (total)	79,0	56,0	97,7	78,0	82,3	67,5	62,1	121,0	54,0	84,0
Consultations	18,0	18,0	44,2	44,4	22,4	22,5	17,2	21,7	20,0	26,3
Diagnostics	61,4	38,0	53,3	48,0	66,2	42,7	45,1	99,8	35,0	47,0
In patient	334,0	109,2	350,8	289,8	346,7	234,6	774,4	3 050,5	509,5	1 469,2

- Notably, in both, Model C and Model B hospital expenditures as well as its share in total health expenditure is higher for insured than non-insured individuals, while in Model A it is almost twice lower for insured compared to non-insured.
- According to the findings of the outpatient expenditures, the Model A seems to practice gate keeping and case management in order to minimize expenditures on in-patient services for insured, while other two models see the insured patient as main source of revenue and lack cost efficiency concerns in prescribing hospital services.
- Moreover, in Model B and Model C, inpatient services for insured are mostly managed by the insurance companies, whereas in Model A cases are first managed by physicians and then approved by the Insurance Company. It is evident that physician managed referrals and illness cases results in filtering unnecessary services as well as hospitalizations. **Notably, the Model A better utilizes modern treatment guidelines (though still few), invests more in workforce development and attempts to monitor guideline compliance through its quality assurance system which is not the case in two other models.**
- Apart from above, the Model A being the sole provider of services in geographical area, ensures wide spectrum of basic health services for the entire population thus increases access to services not only for insured but for non-insured particularly. The latter results in mobilizing resourced from insurance companies, state as well as from the non-insured population thus achieving economy of scale and consequently maintaining relatively low service price.
- All above reasons explain why **expenditure on average hospitalization case in Model A is almost 4 times lower compared to Model C and 2 times lower than in Model B.**
- Pharmaceutical expenditures remain as main cost center in the structure of the total health expenditures (Figure 2 and Figure 3). The highest per capita pharmaceutical expenditure per year is recorded in Model C and a Model B as a share of total health expenditure. In general in all three models pharmaceutical expenditure is more than 40% of total health expenditure. High pharmaceutical expenditures in all three models could probably be reliant on utilization and prescription patterns. **Insured spend more in real terms in Model C and Model B, while the Model A exhibits the lowest expenditures for insured.**
- The utilization of pharmaceuticals is over 62% in all three models regardless of insurance status (Figure 5). Out of those who did not purchase medicines over 63% names cost to be a major barrier. Non-Insured mainly enjoy self- prescription practices while physician prescriptions are practiced for insured. On the one hand, the highest rate of physician prescribed utilization of

**Figure 5: Utilization of Medicines**



medicines is recorded in Model A for insured and on the other hand insured in Model A enjoys fewer expenses on medicines compared to other models. These findings echoes qualitative study findings about **Model A** practicing a **higher level of medical management**. The worrisome is the fact that **non-insured are not treated equally as insured in none of the assessed models resulting in high expenditures and low access to medicines**.

## SUMMARY OF TOTAL HEALTH EXENDITURES BY MODELS

For better visualization of expenditures per model all types of health expenditures were summarized for all three models. According to the level of total health expenditure Model C is prevailing other two models. However analysis of expenditures within the model per insurance status characterizes the Model A as the best model able to manage expenditures of insured.

**Table 4: Total per capita Health expenditure per year per insurance status**

Expenditure	MODEL A		MODEL B		MODEL C	
	NI	IN	NI	IN	NI	IN
Total health expenditure	H	L	L	H	L	H
Out-patient	H	L	L	H	L	H
Pharmaceutical	H	L	L	H	L	H
Hospital	H	L	L	H	L	H

In summary Model A demonstrates better access and affordability of services for both insured and non-insured individuals compared to other two models, however there is still a significant room for further research and improvements.

For detailed information on the structure of the healthcare expenditure, PSI collaborated with Georgian Insurers Association that recently began claims related data collection and database formation. The analyses of the claims database of the all insurance companies participating in government insurance programs revealed that around 70% of all hospitalization cases are urgent in all three models. There might be several explanations for mentioned above indicator and it tends to be the significant subject for the further research. Weather it is a result of exacerbation of health status caused by insufficient coverage/delivery of outpatient services, illegal actions on healthcare provider level or both taken together. To identify causing agents' and other factors, in-depth analysis of urgent hospital service delivery based on provider mapping and diagnoses is required.