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UTILIZATION AND AFFORDABILITY OF HEALTH SERVICES IN THE NEW HEALTH SERVICE PROVISION MODELS

POSITION PAPER

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საჯარო პოლიტიკის, ადვოკატირებისა და სამოქალაქო საზოგადოების განვითარება საქართველოში

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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 Pubic 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.

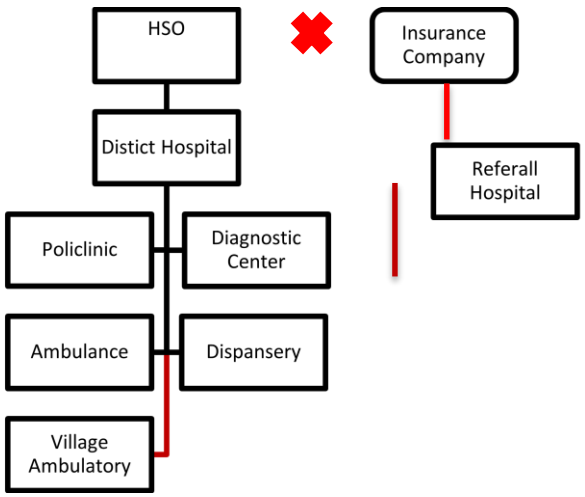
RESEARCH OBJECTIVE

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 as well as attempted to formulate recommendations for improvement of population's access, utilization, affordability and satisfaction.

ANALYSIS OF LEVEL OF SERVICE INTEGRATION IN THREE MODELS

HEALTH SERVICE PROVIDERS, OWNERSHIP AND STRUCTURAL INTEGRATION

Figure 1: Model A organizational Structure



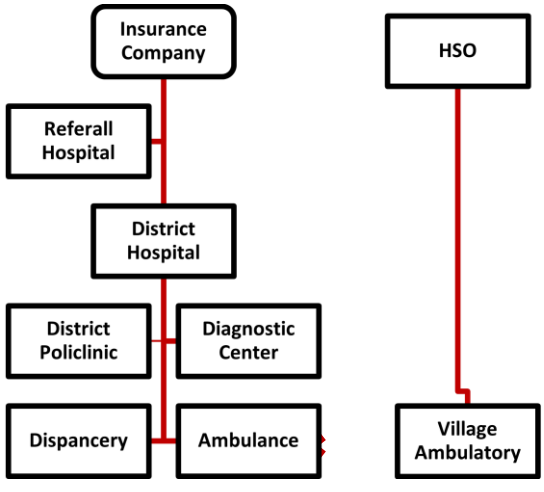
MODEL A

This model 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 40 beds. The services from district policlinic which was a separate legal entity has been merged and consolidated in the district hospital. All diagnostic services, women's consultation and emergency ambulance services (EMS) are also integrated in the hospital and owned by the HSO.

Though village ambulatories remain as separate legal entities, are contracted by the HSO 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 HSO does 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.

Figure 2: Model B Organizational Structure



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.

MODEL B

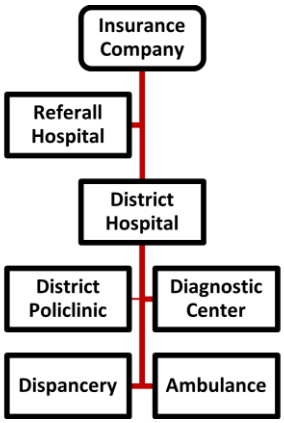
The Model B differs from Model A. In this case the HSO does not own any single health facility (Figure 2Above). The HSO has formal relationship (contracts) only with village ambulatory FPs and FNs whereas all other service providers are owned by others and contracted by IC to ensure service provision to the insured in the district.

In this model non-insured patients from village ambulatories are directly referred to other facilities and the HSO cannot manage referrals. In case of insured, the IC provides pre-authorization for the referrals of insured patients from village ambulatory to other types and level of care.

In a given circumstances the role of HSO is minimal and cannot influence neither IC decision nor the non-insured patient. In summary the HSO is limited to ensure quality and continuum service provision to the population.

MODEL C

Figure 3: Model C Organizational Structure



Model C is mainly Insurance based system where HSO has not the responsibility to ensure provision of health services to population. The IC, through its provider network management unit or procurement unit contracts needed health service providers and organizes service provision for insured, whereas non-insured seek services on their own.

DEGREE OF INTEGRATION

Assessment of the main functions of three models revealed that only Model A is partially integrated, while other two model remains to be fragmented.

CHARACTERISTICS	MODEL A	MODEL B	MODEL C
FINANCE			
Integration of financial streams on each level	Yes	No	No
Capitation Funding	Yes	No(Yes)	No
Other Methods of reimbursement	No	No	No
Incentives	No	No	No
MEDICAL MANAGEMENT			
Case Management	Yes	No	Yes
Disease Management	No (Yes For Certain Diseases)	No	No
Discharge Management	Yes	No	Yes
Referral Management	Yes	No	No
Pharmaceutical Management	Yes	No	No
Utilization Management	Yes	No	Yes
QUALITY MANAGEMENT			
Quality Assurance Teams available	Yes	No	No
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
CLINICAL MANAGEMENT			
Guidelines and Protocols	Yes	No (Yes – Table 17 In Report)	No
Performance Management	Yes	No	No
Team approach to coordination of care	No	No	No
SUMMARY	**Partially Integrated**	**Fragmented**	**Fragmented**

The Model A, 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, 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 a present the Model A positions it to be more efficient and effective in delivering services to population.

ANALYSIS OF TOTAL HEALTH EXPENDITURE

The total per capita health expenditure differs by model. The highest expenditures have been recorded in Model C and the lowest in Model B. It is notable that in Model A population spend more on out-patients services (141 GEL per capita per year) compared to other two models. Higher spending possibly could be a result of either higher cost of services and/or higher utilization rates.

Figure 1: Total Per Capita Health Expenditure Per Year (GEL)

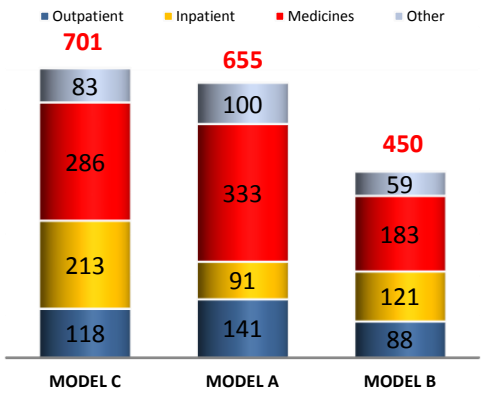
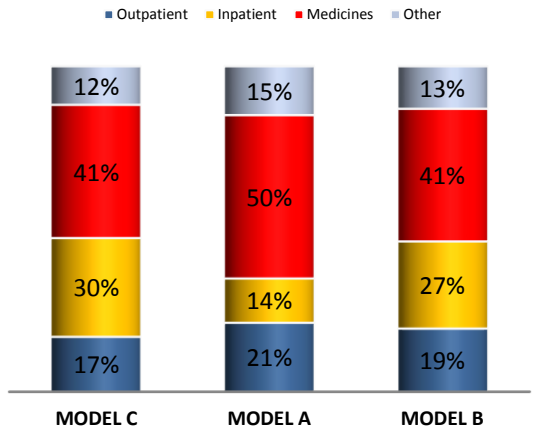


Figure 2: Share of Per Capita Total Health Expenditure Per Year By Models



Expenditures on Medicines comprise 50% of total per capita expenditure per year in the same model and prevails expenditures incurred in other two models. Nevertheless, all three models spend more on medicines compared to 2010 average National expenditure on drugs (40%).

The study revealed that the lowest hospitalization expenditure per capita per year is recorded in Model A 91 GEL) and the highest in Model C which is almost 2.5 times higher than in Model A.

Figure 3: Total Per Capita Health Expenditure per year (GEL) by Insurance Status

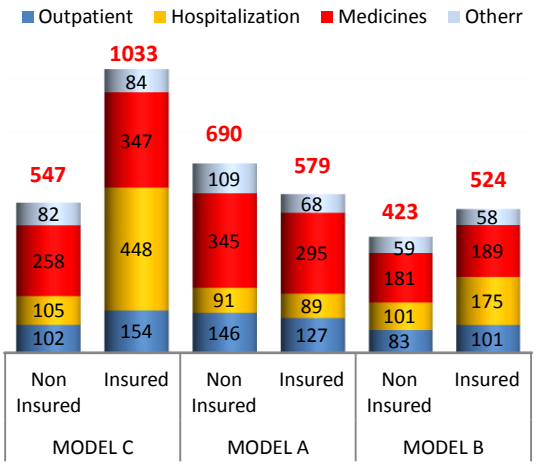
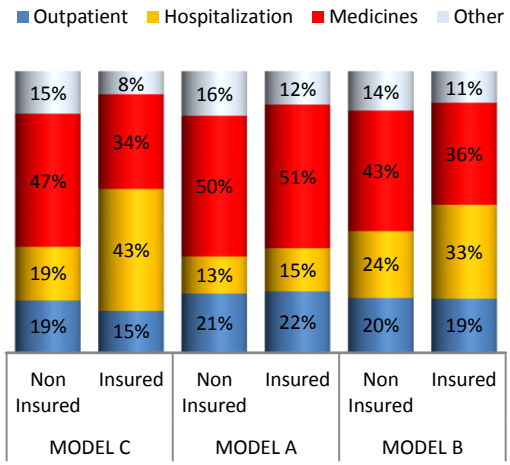


Figure 4: Structure of per capita exenditure per year by insurance status



Total expenditure of insured population is higher than of those being non-insured. More importantly insured spend substantially more in Model C compared to its comparators.

SUMMARY OF TOTAL HEALH EXENDITURES BY MODELS

For better visualization of expenditures per model all types of health expenditures were analyzed between 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 patients.

Table 1: Total per capita Health expenditure per Year

Expenditure (GEL)	MODEL A	MODEL B	MODEL C
Total health expenditure	M	L	H
Out-patient	H	L	M
Pharmaceutical	H	L	M
Hospital	L	M	H

Table 2: Total per capita Health expenditure per year per insurance status

Expenditure (GEL)	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

OUTPATIENT EXPENDITURES

Higher outpatient expenditures are observed in Model C for insured (Figure 3) which possibly could be explained by higher utilization of these services, hyper diagnostics, and higher costs of treatment, ability of the model to maximize utilization of serves as well as provision of treatment at the outpatient level.

Triangulation of findings from both quantitated and qualitative surveys revealed:

Utilization of outpatient services in Model A represents 45% for insured and 39% for non-insured, which is lower than in Model C for ensured (Insured 48% and non-insured 35%) but higher than in Model B (41% insured and 32% non-insured). Thus outpatient utilization rate in Model A is moderate compared to other models and does not impact the high level of expenditure.

Both insured and non- insured receive their first consultation with specialist working at the hospital 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 policlinic level. In case of Model A patients referring to the specialists at hospitals is explained with the setup of the system, policlinic 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.

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 case expenditure on diagnostic services has been recorded in Model A both for insured and patients [Slide 11 of 49] compared to other two models, though it is notable that for non-insured average expenditure per case is almost two 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.

Table 3: Level of per capita out-patient expenditures per year per model

Out-Patient Expenditure	MODEL A		MODEL B		MODEL C	
	NI	IN	NI	IN	NI	IN
Consultancy	L	H	L	H	H	L
Laboratory	H	L	H	L	H	H
Instrumental	H	L	H	L	L	H

To summarize the findings per model, the level of per capita outpatient expenditure by insurance status and referral patterns were analyzed by models and presented in the Table 3 and table 4. [Slide 9 of 49]

Table 4: Referral Patterns per insurance status

Out-Patient Expenditure	MODEL A		MODEL B		MODEL C	
	NI	IN	NI	IN	NI	IN
Official Physician Referral for :						
Specialists' consultation	L	H	H	L	H	H
Laboratory tests	L	H	H	L	L	H
Instrumental diagnostics	H	H	H	H	L	H
Physician prescription of medicines	L	H	H	H	L	H

Expenditures by type of OP services were compered within the model by insurance status for all three models. Apparently Model A and Model B mostly relay on primary physicians and specialists to prescribe further services based on medical indication and minimize unnecessary diagnostic services, whereas the Model C seems to be less concerned about efficiency of care. The results for non-insured are opposite to insured in all three models. In this case provide behavior is oriented towards raising more revenues for non-insured thus creating access barriers for services.

Physician Referral patterns demonstrate how Model A and Model C manage referrals and prescriptions for insured, while these practices are not applied to those who are not insured.

HOSPITAL EXPENDITURES

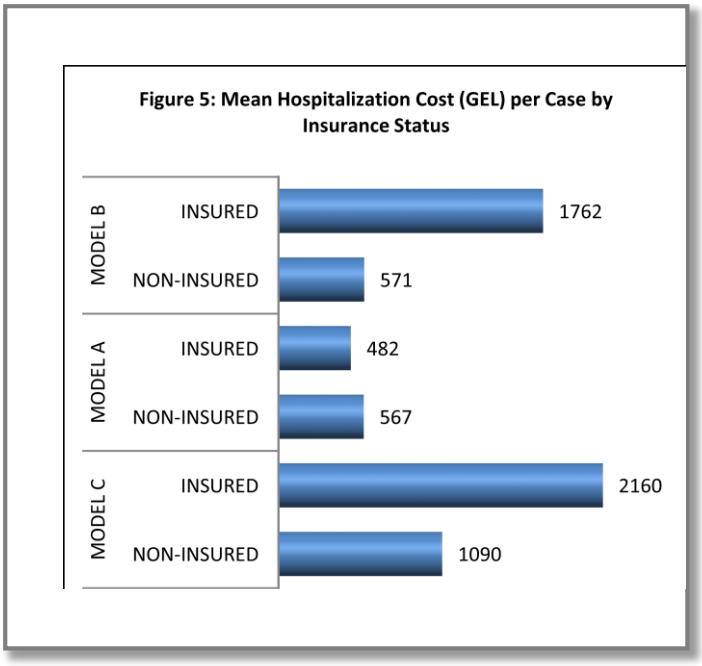
Notably, in both, Model C and Model B hospital expenditures as well as its share in total health expenditure is higher for insured than non-insured individuals, while in Model A it is almost more than twice lower (Figure 3). The hospital expenditure as share of total health expenditure represents only 14% in Model A whereas it is 30% in Model C and 27% in model B (Figure 2).

According to the findings of the previous section on 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 utilizes modern treatment guidelines (though still few) invests in workforce development and monitors guideline compliance through its quality assurance system which is not a case in other two models.

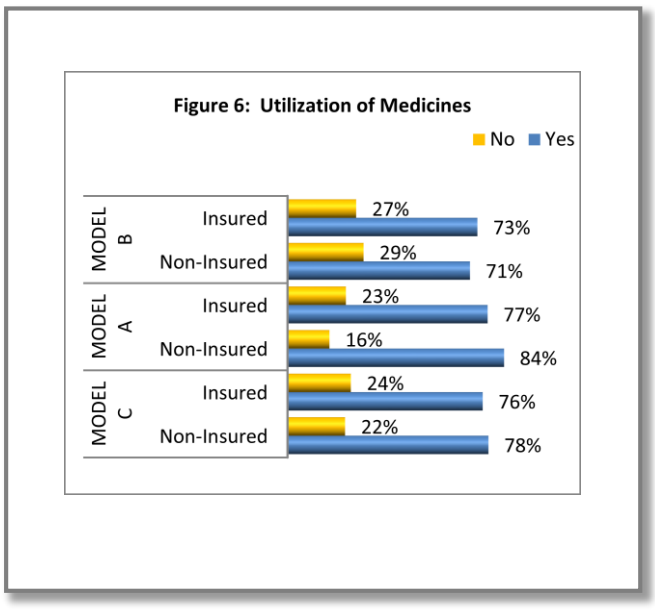
Apart from above, the Model A being the sole provider of services in geographical area, ensures wide spectrum of basic health services for the entire population thus increases access to services not only for insured but for non-insured particularly. The latter results in mobilizing resourced from insurance 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 is 4 times lower in Model A compared to Model C and 3 times lower than in Model B.



PHARMACEUTICAL EXPENDITURES

Pharmaceutical expenditures remains as main expenditure cost center in the structure of the total health expenditures (Table 1 and Table 2). The highest per capita pharmaceutical expenditure per year is recorded in Model A and as a share of expenditure structure accounts for 50%. In general in all three models pharmaceutical expenditure is more than 41% of total health expenditure.



High pharmaceutical expenditures in Model A could probably be reliant on utilization and prescription patterns.

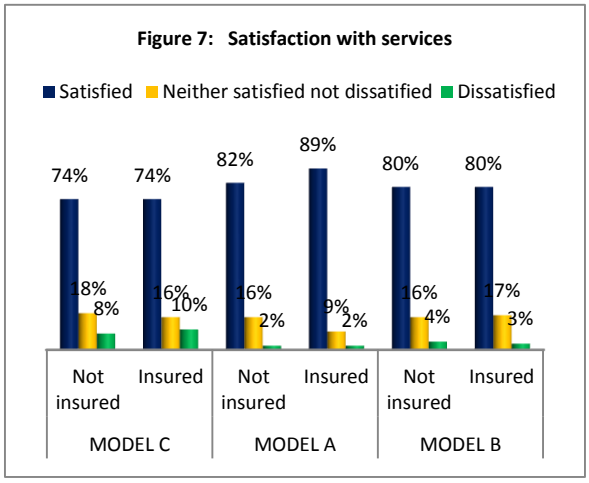
Insured spend more in real terms in Model C and Model B, while the Model A exhibits the lowest expenditures for insured.

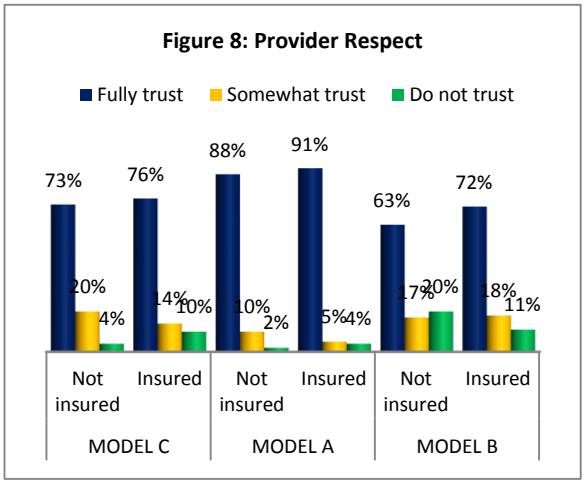
The utilization of pharmaceuticals is over 70% in all three models regardless of insurance status (Figure 6). Out of those who did not purchase medicines over 63% names cost to be a major barrier. Non-Insured mainly enjoy self-prescription practices while physician prescriptions are practiced for insured. On the one hand, the highest rate of physician prescribed utilization of medicines is recorded in Model A for insured , and on the other insured in Model A enjoys less expenses on medicines compared to other models. These

findings echoes qualitative study findings about Model A practicing 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.

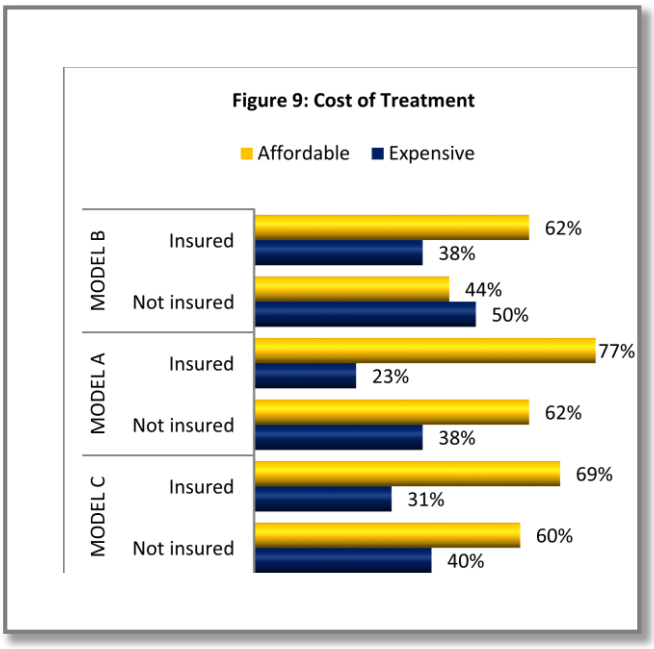
PATIENT SATISFACTION

The research also studied the patient satisfaction in these three models. Surprisingly more than 74% of patients regardless insurance status are satisfied with the services received (Figure7).





Trust towards provider is equally over 63% in all three models. The highest percentage of insured and non-insured patients more trust medical providers in Model A than in any other model (Figure 8).



Cost of treatment was considered affordable for more than 60% of patients in all three models, except in Model B where 50% of non-insured find costs of service expensive. Notably the highest percent of patients who find service price acceptable were in Model A (Figure 9).

SUMMARY OF PATIENT SATISFACTION BY MODELS

Table 5: Overall Patient Satisfaction

	MODEL A	MODEL B	MODEL C
Service Price	L	H	H
Quality	H	L	L
Trust	H	L	L
Overall Satisfaction	H	L	L

To summarize the overall patient satisfaction by models the satisfaction indicators have been compered between the models. The Comparative analysis revealed that patients overall satisfaction with Model A prevails of its comparators.

SUMMARY OF FINDINGS AND CONCLUSIONS

Table 6: 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

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

Nonetheless of this strength, the Model A has definite shortcomings as well. It applies dual practices towards treatment of insured and non-insured patients. If in case of insured demonstrates some level of

gatekeeping function, avoids hyper-diagnosis and minimizes prescription of medically unnecessary treatment, its behavior towards non-insured is opposite. Expenditures incurred per average case by this group of patients are considerably higher of those from insurance scheme, though the utilization levels are lower.

Reasons for dual behavior are twofold. Firstly, capitation based financing agreement with the insurance company puts the model under financial risk and motivates to practice gatekeeping function and secondly, in order to mitigate financial losses is oriented towards maximizing revenues from non-insured.

Being the health service provision effectively regulated by the government, the Model A, the first model of integrated services, has chances and capabilities to become the best choice for health service delivery in the country.