Benefit Incidence Analysis in Armenia

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Abstract

Transition to a market-oriented economy necessitated a structural modification of all functions of the state, including budget resource allocation, targeted to limiting state participation in the country's economy. This was also brought about by the dramatic decline in the government's income, and therefore, its ability to cover the necessary operation and maintenance expenses of the public system characterized by an oversupply of physical and human resources. Despite the ongoing reformation and restructuring at all levels of the economy towards the private sector development and a gradual increase in private ownership, the government remains a monopolist in social service delivery.

This research paper aims to identify the distributional impact of pro-poor public policies in education, health and social assistance, where the Government is identified as a main service provider. More precisely, the study will assess the share of public expenditures in the mentioned sectors allocated to different income quintiles of the population using the Benefit Incidence Analysis method. This will expose to what extent government spending reach the targeted vulnerable groups of the population and are relevant to the declared poverty reduction goals in the country.

Introduction

Public policies in social sectors might have direct and indirect impacts on different groups within a population, depending on their ability to efficiently and effectively address specific issues. The benefit incidence analysis is one of the tools of direct impact analysis and is a simple assessment of who is directly affected by a particular policy and how much they are affected. The study uses this method to analyze the direct impact of pro-poor public expenditures on the different income groups of the population in Armenia at the household level.

This paper discusses the following three components of public expenditures: health, education and Family Poverty Benefits as a part of social assistance. These allocations have strong distributional effect on the poor groups in Armenia and consisted of 28 percent of total public spending in 2003.

The benefit incidence analysis technique involves a three-step methodology aimed to identify the share of government expenditures spent on each quintile. The first step involves aggregating households into quintiles of the population in order to compare how public expenditures are distributed across such groups. Although the most common grouping is by income, households are classified by consumption because of the high level of shadow economy in the country and non-representative data on income. Second, the subsidy is then imputed to household quintiles using utilization rates in particular services per quintile. Individuals who use a subsidized public service in effect gain an in-kind transfer and benefit incidence analysis measures the distribution of this transfer across the quintiles.

$$X(ij) = E(ij)/E(j)* S(j)$$

where X(ij) is a benefit incidence for (i) quintile in (j) service,

E(ij) is a number of people in (i) quintile using the (j) public service,

E(j) is a total number of beneficiaries in (j) service,

S(j) is the share of the sub-sector expenditures in the (j) service.

In the result, the gross benefit incidence of the pro-poor public expenditures are estimated as the weighted average of the incidences in the selected sectors. The weighted average is calculated based on the share of the sector spending in social budget expenditures, defined here as the total allocation to the three sectors examined in this paper.

Education

In the functional classification of the State Budget, Education and Science receive the highest share of the governments' total social expenditures, where only Defense receives higher allocations. This is conditioned not only by the prioritization of education in the public policies in Armenia, but also by the dominance of state ownership in service delivery, especially at the general educational level. Table 1 indicates that from 1999 to 2003 public expenditures in education are continuously growing both in absolute terms by 58 percent and as a share of the total public expenditures by 51 percent for 1999-2003. The ration of education spending to GDP, however, decreases for the same period by about 5 percent, mostly caused by the country's high GDP growth. By this indicator, Armenia is twice as far behind the average OECD country and has the lowest ratio among the countries in the ECA region[1] despite its relatively high level of spending in the sector.

Table 1. Public Expenditures in Education, 1999-2003

	1999	2001	2002	2003
Public Expenditure in Education (million dram)	20,789.6	29,037.6	29,149.7	32,888.1
Public Expenditure in Education as % of GDP	2.1	2.5	2.2	2.0
Public Education Expenditure in education as % of total public expenditure	9.0	11.9	12.4	13.6

Education proved to be an essential investment in human capital, developing the potential capacities of people and expanding the opportunities to use those capacities. The strong correlation between education and income generating abilities emphasizes

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[1] Armenia, Public Expenditure Review, April 28, 2003, Poverty Reduction and Economic Management Unit, Europe and Central Asia Region, Document of the World Banks

education as one of the most crucial factors in avoiding the poverty trap. Depending on the strength of the positive externalities generated by provided services at the various levels and budget constraints, the State participation differs among educational levels. Moreover, the level of government engagement determines the organizational and managerial structures of the relevant educational institutions.

The analysis focuses on the pre-primary, primary, college and higher educational institutions depending on the level of their impacts on the formation and development of human resources and on the size of their budget allocations.

Table2. Shares of the Public Expenditures by Main Levels in Education,1999-2003(%)

	1999	2001	2002	2003
Education	100.0	100.0	100.0	100.0
MoES administration	0.3	0.2	0.2	0.3
Local Budgets for preschools	8.5	6.3	6.6	7.5
Primary, lower secondary, upper secondary academic education	61.4	68.9	66.6	63.1
Upper Secondary VET	2.0	1.5	1.5	1.2
Colleges	4.9	3.8	3.6	3.9
Universities	12.3	10.5	11.3	12.1
Retraining institutions	0.8	0.9	0.8	1.0
Others	9.8	7.9	9.4	10.9

As could be seen from Table 2, primary, lower secondary and upper secondary academic levels have the highest share, on average 64 percent, of the total government expenditures allocated to education. This grows during the observed period by about 7 percent. On the contrary, the rest of the expenditures, having a significant share of the total, i.e. local budgets for preschools, colleges and universities, decrease by relatively 15, 33 and 9 percents. Despite the overall downward trend in the share of these educational allocations, they are fluctuating over time. In 2001 and 2003 their shares decrease, while increasing in 2002, partially influenced by the adverse behavior of the primary, lower secondary, upper secondary academic education expenditures. This significant decrease in public spending in tertiary education is mostly explained by increasing shares of private ownership and paid public services in the sector.

Budget reforms in Armenia have affected resource allocation mechanisms in Education aimed to establish links between the expenditures and the output, relevant to

the defined policy objectives. Budgeting in the sector includes both global budgeting and line-item methods with the implied normative coefficients inherited from the previous regime. Despite its more efficient and result-oriented nature global budgeting does not apply any real market-based costs resulted in irrelevant service cover by the Government. Moreover, the appropriate institutions manage internal distribution of the resources independently diminishing the direct flow of funds to particular needs. The current expenditures have predominant shares in education expenses as well as in other sectors leaving incremental budget supplies for capital expenditures not corresponding to the real value of the maintenance and construction costs. At all education levels resource allocation is mostly based on per pupil or per student calculations even though the rates used to compute these expenditures are either unchanged from the Soviet system or do not match the real costs of service delivery.

Pre-primary education is one of the policy priorities in education and, until recently, the government was the only service provider. As shown in Table 3 private ownership emerged in 2000 and the number of private institutions has grown to about 2.5 percent in total in 2003.

Table 3. Pre-school establishments and number of enrolled children, 1999-2003[2]

|	1999	2000	2001	2002	2003
Number of pre-school establishments	844	769	717	692	699
Number of state pre-school establishments	844	764	712	681	682
Number of children in pre-school establishments, thsd.children	52.9	46.6	44.6	45.4	46.9
Number of children in state pre-school establishments, thsd.children	52.9	46.3	44.4	44.8	46.1

Despite the state dominance in this service delivery the number of enrolled children in pre-school establishments, which by definition provide care, nursing, improvement of sanitary conditions, bringing up, and training of children aged from 1 to 6.5 years [3] is quite low, capturing only a small number of children in the relevant age. This could be explained by low quality of provided services, when the education institutions rely mostly on the insufficient public resources. On the other hand symbolic

[2] Statistical Yearbook, The National Statistical Service of RA
[3] Statistical Yearbook, 2004

fees for the services could be unaffordable for the poorest groups of the population, especially when they are unemployed. Thus, as depicted in Graph 1 in average only 18 percent of children in the relevant age attend pre-primary education establishments and their number is growing by about 8 percent for 1999-2003.

Graph 1. Share of children attending pre-school establishments,%

In percent of the number of children of relevant age
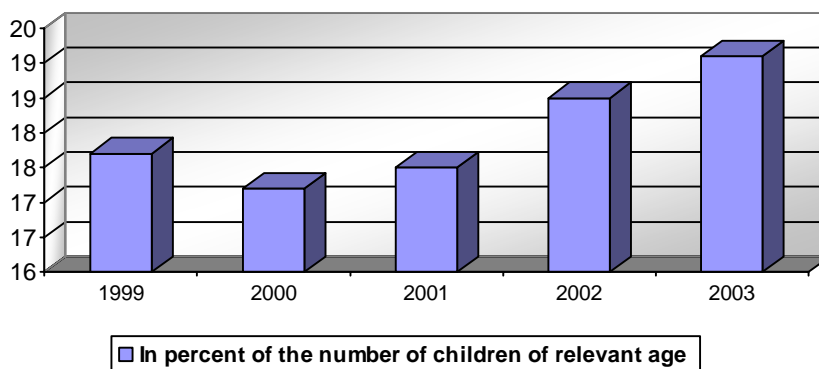
The primary, lower secondary and upper secondary education is the primary target of public policies in education requiring in average 65 percent of the total government expenditures. The monopoly of the government in this system is determined by the constitutional right of an individual to obtain free of charge basic education and still undeveloped private sector facing lower demand. Resource allocation in these institutions is implemented based on the global budgeting system except of small schools located in remote and mountainous areas with around 100 pupils (these schools account for 22 percent of the total number of schools in the country).[4] The funding of different schools has been equalized to some extent using the formula based on the average estimation of the following parameters for 154 schools with more than 100 pupils from different region of the country: the annual per-pupil fund and the amount of institution's maintenance costs. These coefficients allow to determine average necessary resources for each school and offset the negative difference if it exists. The increase in budget allocations to primary education increases the distribution within the sector by some constant depending on the extent of total increase.

Table 4. General education schools and number of enrolled children, 1999-2003

	1999	2000	2001	2002	2003

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[4] Public Expenditure Review: Recurrent and Capital Expenditure Module

Number of general education schools	1463	1458	1475	1512	1472
enrolment in them, 1000 persons	589.78	574.19	538.479	523.1	501.936
Number of public general education schools	1436	1433	1444	1481	1439
enrolment in them, 1000 persons	587.7	572.2	535.5	520.6	498.5

Table 4 allows to approximately understand trends in primary, lower secondary and upper secondary academic institutions, that are main part of the general education[5]. In this sector the state is the primary service provider with the average participation rate of about 98 percent in total and with 99, 52 percent of the pupils enrolled in the public general education schools.

In the difference of pre-primary and general education, budget allocations in secondary and higher education include both line-item and global budgeting practices. The per-student costs are calculated without considering any real costs and then depending on the number of students the resources are distributed between the different institutions. These institutions rely less on public resources because of the paid service delivery.

Table 5. Number of secondary specialized and higher educational establishments and enrollment in them, 1999-2003

	1999	2000	2001	2002	2003
Number of secondary specialized education establishments	111	105	99	100	105
enrolment in them, 1000 persons	30.1	28.7	31	29.4	31.1
Number of public specialized secondary schools	77	75	77	77	81
enrolment in them, 1000 persons	28	26.9	29.3	27.6	28.6
Number of higher educational establishments	98	90	91	92	93
enrolment in them, 1000 persons	61.7	60.7	65.6	72.3	77.9
Number of public higher educational establishments	16	19	20	20	20

[5] General education schools are primary general, basic general, secondary (complete) general and special general education institutions, which realize general educational programs, Statistical Yearbook, The National Statistical Service of RA

enrolment in them, 1000 persons	39.8	43.6	47.4	54.1	55.9

As could be seen from Table 5 despite still high government involvement in the specialized secondary schools[6] and higher educational establishments the share of the private sector is relatively higher than at all other educational levels. Although the share of the public specialized secondary schools in total increases by 11 percent, the enrollment ration in total decreases by about 1 percent over the analyzed period of time. For the higher education establishment the mentioned indicators show relatively 32 and 11 percent growth. This academic level has the highest private sector involvement of about 19 percent within the sector. Moreover these education institutions provide also paid services to almost the same extent and less rely on public resources. The expenditures in higher education comprises in average 11 percent of the total education budget allocations.

In the conditions of existing budget constraints and in the perspectives of addressing the targeted groups of the population it is important to analyze service benefits for the different quintiles of the population.

This will allow to judge the necessity and track externalities of the government expenditures at different academic levels and to estimate their access for the poor strata of the population.

Table 6.Utilization rates in education by different levels and quintiles of the population, 1999(%)

Percentage of enrolled in state institutions	1	2	3	4	5
Pre-primary Education	19.35	22.58	18.89	22.58	16.59
Primary education	20.4	21.09	21.09	19.35	18.08
upper secondary	36.36	18.18	18.18	0.00	27.27
Technicum	22.81	19.30	21.05	14.04	22.81
higher education	7.19	16.55	17.27	28.06	30.94

Graph 2. The cumulative distribution of the public education services among the population quintiles,1999

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[6] Colleges are included into secondary specialized educational establishments.
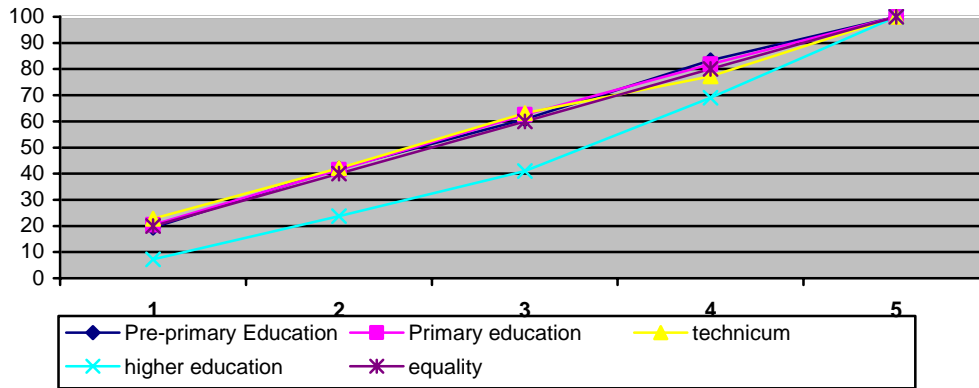
Table 6 shows the participation of different quintiles of the population in various education levels and Graph 2 depicts cumulative shares of the quintiles using the services and comparison with the "equality" level although without any demographical adjustments. This allows to make only roughly estimations. In 1999 the poorest quintiles benefit more at all academic levels with the exception oh higher education where the utilization rate for two highest quintiles is twice higher than for the lowest quintiles.

Table 7.Utilization rates in education by different levels and quintiles of the population, 2001(%)

Percentage of enrolled in state institutions	1	2	3	4	5
Pre-primary Education	11.43	22.14	15.71	23.57	27.14
Primary education	16.49	17.68	19.81	22.45	23.57
Technicum	17.07	14.63	24.39	14.63	29.27
higher education	18.8	12.82	19.66	16.24	32.48

Graph 3. The cumulative distribution of the public education services among the population quintiles,2001
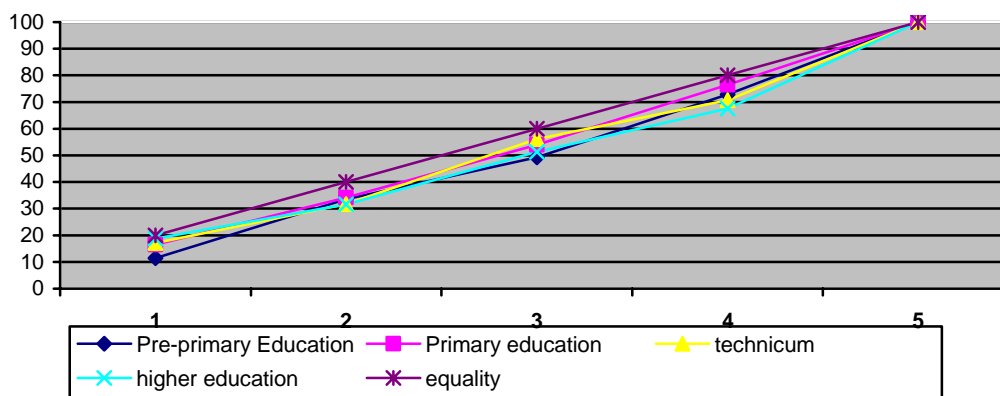
The utilization rates by the quintiles are sharply changing in 2001 as could be seen from Table 7 and Graph 3. At all education levels the richest quintiles are gaining more benefits from the public expenditures than the poorest quintiles. However in higher education the gap between two highest and lowest quintiles decreases by about 51 percent comparing to the previous year.

Table 8.Utilization rates in education by different levels and quintiles of the population, 2002,(%)

Percentage of enrolled in state institutions	1	2	3	4	5
Pre-primary Education	14.53	22.91	13.97	25.14	23.46
Primary education	17.31	18.53	18.31	21.14	24.71
Technicum	17.65	17.65	17.65	26.47	20.59
higher education	7.23	18.07	16.87	25.3	32.53

Graph 4. The cumulative distribution of the public education services among the population quintiles,2002
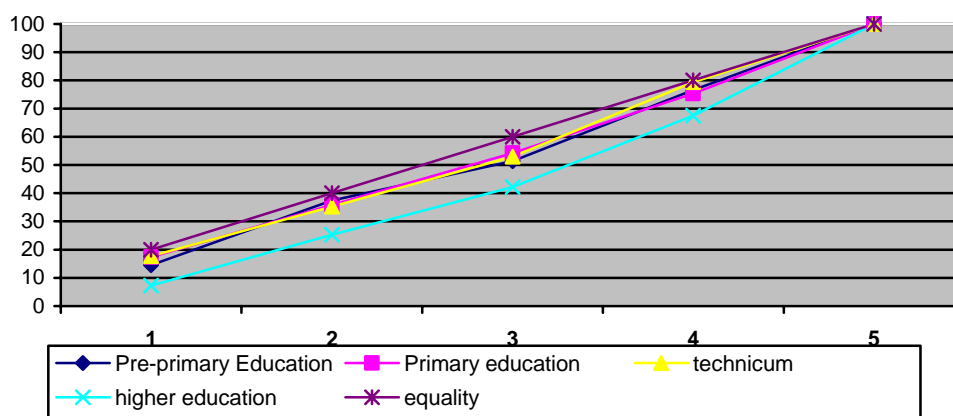

The utilization rates of different groups of the population demonstrate the similar trend for 2002 allowing the higher participation of the richest quintiles in the public services than for the poorest quintiles. However these indicators are improving for all levels except of higher education. The gap between two highest and lowest quintiles decreased for pre-primary, primary and college levels relatively by 14, 5 and 4 percents while it increases by 48 percent for higher education.

Table 9.Utilization rates in education by different levels and quintiles of the population, 2003,(%)

Percentage of enrolled in state institutions	1	2	3	4	5
Pre-primary Education	20.44	19.34	17.68	16.02	26.52
Primary education	17.6	16.48	20.43	20.46	25.03
upper secondary	15.3	30.7	15.3	15.3	23
Technicum	19.15	17.02	21.28	19.15	23.4
higher education	12.5	18.27	24.04	21.15	24.04

Graph 5. The cumulative distribution of the public education services among the population quintiles, 2003
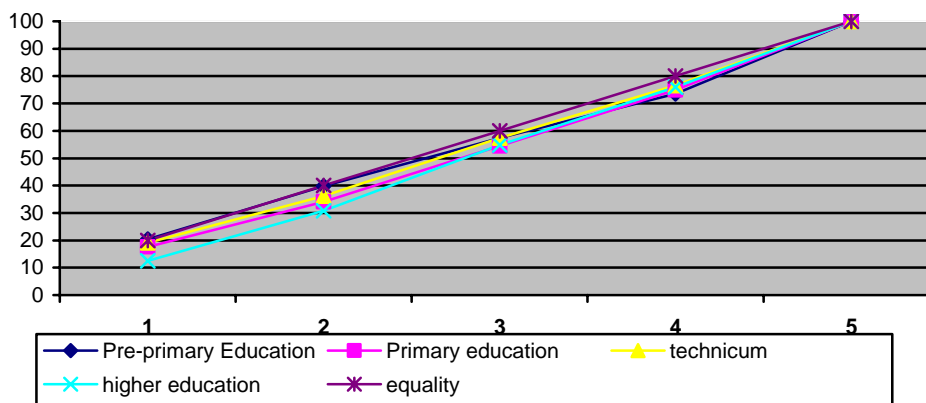
Improving trend for almost all indicators continues in 2003, except of primary education where the participation gap between the highest and lowest quintiles increases by 4 percent The same indicator is going down for pre-primary, college and higher education relatively by 18, 12 and 36 percent.

It is obvious that these indicators cannot be improved in the short-term and increasing the efficiency and effectiveness of public policies towards targeted groups requires long-term structural and economic reforms. Despite these fluctuations of utilization rates over the analyzed period mostly determined by the variances of the random variables captured in the surveys, in this case households, they demonstrate the general distributional incidence among the population.

The significant social and economic disparities between the different regional units in the country dictate diversified approaches in public policies aimed to generate equal outcomes for the population. The significant differences between the Capital city

and other regional units inherited from the centrally planned economy and conditioned by transition specifics require their separate discussion.

Table 10. Utilization rates in education by different levels and quintiles of the population in different administrative units, 1999-2003(%)

	1999	2000	2001	2002	2003
Share of pre-school establishmentsin total, %					
urban areas	31	60	63	64	63
rural areas	69	40	37	36	37
Share of children in pre-school establishments in total, %					
urban areas	86	84	84	84	84
rural areas	14	16	16	16	16

As could be seen from Table 10 the geographical distribution of pre-primary establishments changed significantly from 1999 to 2003 sharply increasing the share of the urban schools in total twice and simultaneously decreasing the share of the rural schools by 46 percent. Despite these structural changes the share of children enrolled in pre-school establishments demonstrates opposite behavior in the urban and rural areas. This indicator decreases by 2.3 percent for the urban areas for 1999-2001 and increases by 14.3 percent for the rural areas. However the growing number of schools has brought no increase in total number of enrolled children. Moreover the reduction in rural pre-primary establishments in absolute and relative terms has no negative impact on the number of beneficiaries and moreover it increases by 21 percent. Thus, judging from these figures, initiated reforms have somehow regional diverse effect at the pre-primary level although in total both the number of pre-schools and number of children in them show downward trend comprising relatively 17 and 11 percent decrease in 2003 comparing to 1999.

Table 11.Utilization rates in pre-primary education by different levels, quintiles of the population and by locations, 1999-2003 (% in total)

1999	1	2	3	4	5
Capital	28.57	28.57	13.33	17.62	11.90
Other urban	10.44	25.89	27.56	23.59	12.53
Rural	29.19	12.14	17.34	18.79	22.54
2001	**1**	**2**	**3**	**4**	**5**

		1	2	3	4	5
	Capital	18.71	25.90	22.30	12.95	20.14
	Other urban	20.55	31.51	13.70	26.03	8.22
	Rural	8.36	20.12	13.31	25.70	32.51
2002		**1**	**2**	**3**	**4**	**5**
	Capital	18.11	31.32	12.83	24.53	13.21
	Other urban	35.12	17.86	11.31	20.24	15.48
	Rural	8.31	22.99	15.79	24.65	28.25
2003		**1**	**2**	**3**	**4**	**5**
	Capital	21.93	15.24	15.61	17.47	29.74
	Other urban	33.33	25.98	17.65	16.67	6.37
	Rural	19.25	25.29	19.83	18.97	16.67

The figures in Table 11 are presented not at the household level, but at the population level in the difference of other indicators determined by low-size samples at the regional level. As could be seen from Table 11 two lowest quintiles are benefiting more from the pre-primary education in Capital city than two highest quintiles with about 28 percentage point difference, while in the other urban and rural areas their participation rates are almost equal in 1999. 86 percent high share of children in urban pre-school establishments makes this indicator lead the overall trend of the participation of quintiles, resulting in 2.8 percentage point difference. The situation sharply changes in 2001 for Capital city and rural areas causing a significant decrease of the shares of two poorest quintiles by relatively 22 and 31 and high growth for two richest quintiles relatively by 12 and 41 percent comparing to the previous year. This results in about 58 percent decrease in gap between these two groups of the population, where the poorest quintiles still benefits 11 percentage point more than richest ones in the Capital city. There is sharp change in service distribution in the rural areas, where the highest quintiles gain about 30 percentage point more than the lowest groups. On the contrary other urban areas demonstrate reverse behavior improving a share of the poorest quintiles by 43 percent and reducing this indicator for the richest group by about 5 percent. This leads to a redistribution of service delivery towards the poor groups with the difference of about 18 percentage point. The utilization structure in 1999 certifies that despite the low level of enrollment in the pre-primary education of children in relevant age comprising only 17.7 percent, the poor groups are the main beneficiaries in Capital city and equally share public services in other urban and rural areas. However in 2001 the picture totally changes in the rural areas, mostly conditioned by decreasing number of pre-primary educational establishments by 46 percent, although the total number of enrolled children increases by 19 percent. The optimization of school number caused high transportation costs in the rural areas, which were characterized by underutilization of physical and

human resources inherited from the previous regime and inability of the Government to maintain their previous levels, and resulted in an increase in inequality amongst the quintiles.

The share of the poorest quintiles in other urban areas improves in 2001 comparing to the previous year reflecting the impact of the increase in number of urban schools in absolute terms by 71 percent, although the number of enrolled children decreases by 18 percent. These developments demonstrate the high positive correlation between the number of pre-primary education establishments and utilization by the poor population.

The utilization rates for all regional units in 2001 basically replicate the same behavior in 2002, slightly improving the distribution of service delivery in the rural areas by decreasing gap between two highest and lowest quintiles by about 27 percent.

In 2003 the participation rates for the Capital city are principally changed providing about 10 percentage point higher enrollment level for two highest than for the lowest quintiles in the sector. In the difference of other administrative units, other urban areas continue to capture more the poorest strata of the population rather than the richest ones, having about 37 percentage point difference between them. The positive change is observed in the rural areas where the two poorest quintiles are benefiting 8.9 percentage points more than the richest quintiles. The analyzed macro data and household surveys indicate that the enrollment of the children in relevant age in the pre-primary educational establishment grows by 7 percent from 1999 to 2003, although the absolute number of enrolled children decreases by about 11 percent affected by demographical changes. By the location criteria all this results in ensuring more benefits for the poors in rural and other urban areas rather than in the Capital city without considering the demographical structure of the targeted population by the quintiles and regional units.

Table 12. Share of general education schools and enrolled pupils in the different administrative units in total, 1999-2003(%)

	1999	2000	2001	2002	2003
Share of general education schools in total, %					
urban areas	40	40	39	41	40
rural areas	60	60	61	59	60
Share of students in general education schools in total, %					
urban areas	61	60	58	57	57

rural areas	39	40	42	43	43

The analysis at the primary, lower secondary, upper secondary academic levels review the general education schools which include insignificant share of other institutions besides them. The general education depicts the similar picture with less discrepancies than the pre-primary education establishments at the different regional units. The share of the schools in both urban and rural areas remains stable with fluctuations within 1 percent, while the share of enrolled students in total declines by 6.2 percent for urban areas and increases by 9.5 percent for rural areas for 1999-2003. Conditioned by high level of the students enrolled in the urban areas, its decrease leads to the overall decrease of this indicator while the number of schools remained relatively stable as could be seen from the Graph 6.

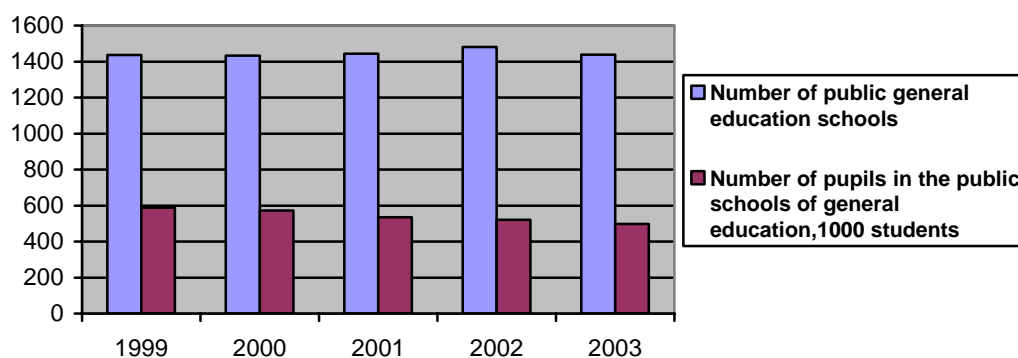*Graph 6. Number of public general education schools and enrolled pupils, 1999-2003*

Table 13.Utilization rates in primary education by different levels, quintiles of the population and by locations, 1999-2003 (% in total)

1999	**1**	**2**	**3**	**4**	**5**
Capital	28.57	28.57	13.33	17.62	11.90
Other urban	10.44	25.89	27.56	23.59	12.53
Rural	29.19	12.14	17.34	18.79	22.54
2001	**1**	**2**	**3**	**4**	**5**
Capital	18.71	25.90	22.30	12.95	20.14
Other urban	20.55	31.51	13.70	26.03	8.22
Rural	8.36	20.12	13.31	25.70	32.51
2002	**1**	**2**	**3**	**4**	**5**
Capital	18.11	31.32	12.83	24.53	13.21
Other urban	35.12	17.86	11.31	20.24	15.48
Rural	8.31	22.99	15.79	24.65	28.25
2003					
Capital	21.93	15.24	15.61	17.47	29.74

| Other urban | 33.33 | 25.98 | 17.65 | 16.67 | 6.37 |
| Rural | 19.25 | 25.29 | 19.83 | 18.97 | 16.67 |

As could be seen from Table 13, at the primary academic level the other urban areas have the most pro-poor structure although demonstrating strong decreasing trend of the share of two poorest quintiles of the population over the analyzed period of time. The difference in participation rates decreases by about 34 percent, however still maintaining high 17.7 percentage point between two richest and poorest quintiles in 2003. The utilization rates in the Capital city fluctuate amongst the population quintiles decreasing the share of the lowest quintile for all years including, and have about 22 negative growth for 1999-2003 period of time. This indicator for two richest quintiles grows by about 24 percent in 2001, decreases by 5 percent in 2002 and grows by about 7 percent in 2003 resulting in 2.32 percentage point difference between these two groups at the end. The rural areas demonstrate the higher levels of participation for the richest quintiles during all years leading to 155 percent increase in the gap between two lowest and richest quintiles.

It is worth to mention that in general the out-of-pocket expenditures in pre-primary and general education sectors have no significant differences amongst quintiles and does not demonstrate strong changes over time according to the household data. Despite this fact even the small share of the costs could be unaffordable for very poor groups, thus excluding them from exploitation of public services. From the other hand their stable behavior generates no causality in the utilization fluctuations among different groups of the population.

Health

The structural changes in political and economic systems in Armenia in 90s dictated the necessity of reforming healthcare system that affected public expenditure allocation mechanisms, distributional pattern and quality of provided services. In addition, budget constraints conditioned by the overall economic recession and inability of the Government to maintain the previous levels of financing led to the sharp decrease in the government health expenditures currently comprising in average 7.12 percent of total budget expenditures for 1999-2003. Despite still high exploitation of physical and human

resources in the sector Armenia has the lowest utilization rates of healthcare services including outpatient and inpatient care, among the CIS and CEE countries[7].

Table 14. Government Health Expenditures, 1999-2003

	1999	2000	2001	2002	2003
GHE(million)	21,555	16,327	17,396	15,988	19,329
GHE(%GDP)	2.2	1.6	1.5	1.2	1.2
GHE(%SBE)	8.9	7.3	7.1	6.1	6.2

Initiation of reforms in 1996 aimed to optimize healthcare sector oriented not only to the reduction of oversupply of human and physical resources, but also to the transformation from input based financing of healthcare institutions to output based system. This has been mainly emphasized in the primary and secondary healthcare services which have the highest share in the total health expenditures and where the government policy have been directly targeted to the vulnerable and poor strata of the population. Moreover, secondary state-owned healthcare institutions, i.e. hospitals, were reorganized into the joint stock companies with the government participation and were allowed to charge for their services. Policlinics were separated from the hospitals receiving independent status and with the ambulatory systems serve as primary healthcare institutions.

Allocation of resources in the secondary healthcare in the Capital city is based on the actual number of cases in the previous year. Financing of the services at the regional level has incremental nature depending on the relative number of the poor and vulnerable population in different marzes[8]. Such regional approach to the hospitals has not generated significant discrepancies in budget allocations among the different administrative units in the country. In general, public policies in the sector currently prioritize primary healthcare conditioned by the preference of the more efficient preventive measures over the rehabilitative ones and by sharp reduction in the utilization rates in tertiary sector amongst the population. There are two criteria used for the allocation of public resources in the primary healthcare institutions: catchment area population and capitation rates.

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[7] Public Expenditure Review

[8] The definition of the poor and vulnerable includes, besides the poor, disabled individuals (according to the third degree of disability), war veterans, children under the age of 18 with one parent, orphans under the age of 18, disabled children under the age of 16, families with four or more children under the age of 18, families of war victims, victims of political repression, children of disabled parents and victims of the Chernobyl disaster. The vulnerable groups are defined following the standards of the Soviet system (World Bank, 2003).

*Table 15. The Share of Primary and Secondary Healthcare Institutions in Total
Government Health Expenditures*

	1999	2000	2001	2002	2003
Hospitals	53.8	54.0	56.5	55.3	51.3
Policlinics and Ambulatories	22.7	17.9	19.1	23.2	39.7
Other healthcare institutions and services	18.3	19.5	19.2	15.7	5.0
Hygienic antiepidemic service	4.5	7.1	4.8	5.2	2.8
Other programs	0.6	1.5	0.5	0.5	1.3
Total	100	100	100	100	100

As could be seen from Table 15 the share of government health expenditures on the hospitals has decreased by about 5 percent during 1999-2003, while the share of policlinics and ambulatories in the total health expenditures has grown by 75 percent. The expenditures in these two sectors have increased from 76.6 percent in 1999 to 90.9 percent in 2003.

The unlimited access to the healthcare services in the country during the Soviet system has been replaced by the Basic Benefit Package consisted of two types of free services. The first one ensures healthcare services for the poor and vulnerable population in all levels excluding some specific very costly services or less essential services, and the second one is targeted to all population such as all family medicine (PHC), including part of the cost of home visits; antenatal and post natal care (provided by gynecologists or nurses); a large part of dispensary outpatient care (tuberculosis, part of other infectious diseases, part of the oncology services, psychiatric care); and a selection of hospital services[9].

As the rates for the healthcare services included in the Basic Benefit Package have been adopted by the government without consideration of market prices, they only partially cover costs. Table 16 shows expenditures in healthcare by sources, where the government expenditures and external grants have almost equal small share in total health expenditures. The significant level and increase of about 19 percent for 1999-2002 period

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[9] Public Expenditures in Health, prepared by Panagiota Panapoilou

of the out-of-pocket expenditures, including formal and informal payments, raises an issue of access to services for the poor and distributional impact of public policies in the sector.

Table16. Total health expenditures by sources, 1999-2002[2]

	1999	2000	2001	2002
THE (%GDP)	7.1	5.2	7	5.8
Government expenditure (%GDP)	27.3	24.6	17.0	17.9
OOP payments (%GDP)	54.0	55.8	59.0	64.4
External grants (%GDP)	18.7	19.6	24.0	17.7

As the main allocations of the government health expenditures have been targeted to the primary and secondary healthcare institutions, the analysis here focuses on these institutions. According to the Household Surveys conducted in 1999, 2001, 2002 and 2003, the secondary healthcare institutions demonstrate more equal exploitation of services comparing to the policlinics, although the later is fully covered under the BBP in the difference of the hospitals. There might be different reasons lied under such discrepancies in the utilization rates. The tertiary institutions, in general, provide respiratory services in the final stages of the diseases, while the services provided by the policlinics might be avoided because of their non-urgent nature. Moreover poor groups of the population are not usually aware of the provided free-of-charge public services demonstrating the government failure in ensuring appropriate information flows. In addition usually, the services captured in BBP, require high out-off-pocket expenditures including informal payments deteriorating their accessibility for the poors. For other healthcare services such as diagnostic centers, private physician and other, there is a relatively bigger gap between the poorest and richest quintiles of the population, depicting less reliance of the top quintiles on low-quality services provided by non-private enterprises.

Graph 7. Utilization rates in healthcare by different institutions and quintiles of the population, 1999(%)

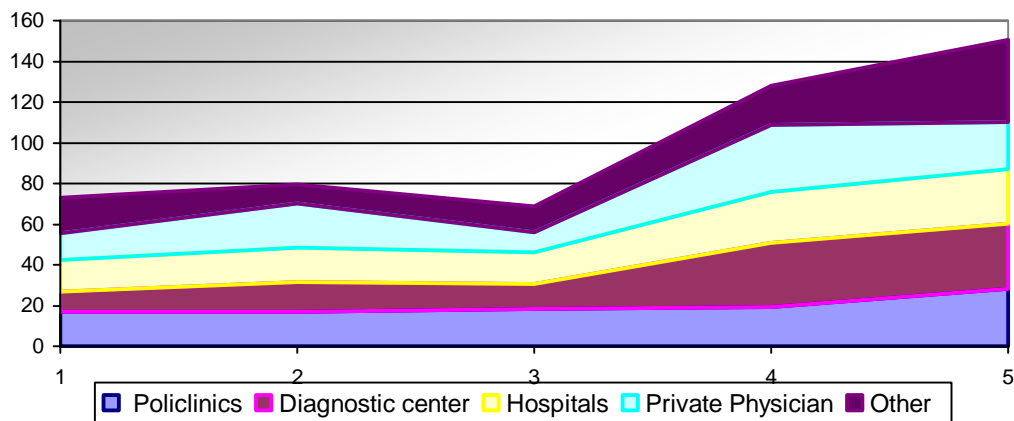Chart legend: Policiclinics, Diagnostic center, Hospitals, Private Physician, Other
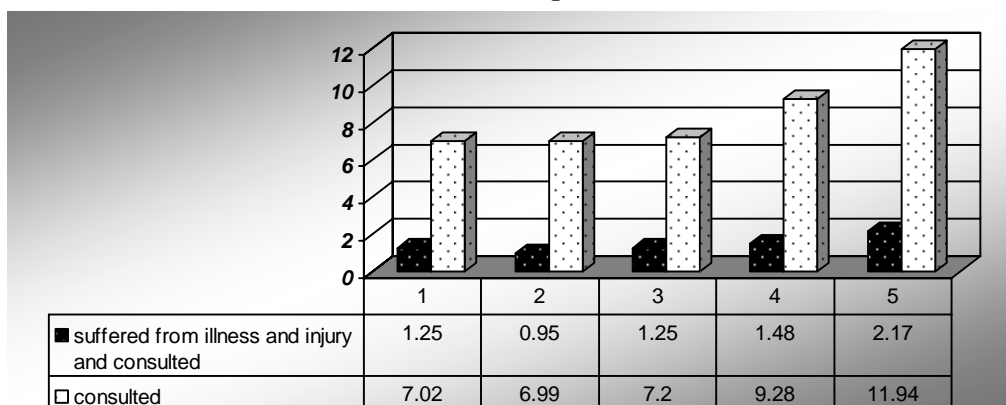
Table 17.Utilization rates in healthcare by different institutions and quintiles of the population, 1999(%)

In 1999, as could be seen from Graph 7 and Table 17, two top quintiles have the highest utilization rates for exclusively all services provided by the different healthcare entities. The healthcare institutions not included in BBP system demonstrate sharper discrepancies in the participation rates. Two highest quintiles have relatively 160, 117 and 60 percent higher utilization rates in services provided by diagnostic centers, private physician and other institutions than lowest ones. Policiclinics and hospitals show more pro-poor distributional pattern comprising relatively 40 and 60 percent for the mentioned indicator.

1999

Quintiles	1	2	3	4	5
Policiclinics	16.95	17.10	18.32	19.24	28.40
Diagnostic center	9.76	14.63	12.20	31.71	31.71
Hospitals	15.57	16.89	15.57	24.80	27.18
Private Physician	13.11	21.31	9.84	32.79	22.95
Other	17.74	9.68	12.90	19.35	40.32

Graph 8. Percent of people suffered from illness and injury and consulted with health practitioner or visited a health center in each quintile, 1999

	1	2	3	4	5
■ suffered from illness and injury and consulted	1.25	0.95	1.25	1.48	2.17
□ consulted	7.02	6.99	7.2	9.28	11.94

As could be seen from Graph 8 only, in average, 1.4 percent of the population in each quintile, who suffered from illness and injury, consulted with health practitioner or visited health center. Two highest quintiles use the healthcare services about 65 percent more than two lowest ones explaining higher utilization trends in all services. Another indicator, showing the overall share of people in each quintile consulted with health practitioner or visiting health centers, demonstrates the same behavior for the different quintiles exhibiting 50 percent difference.

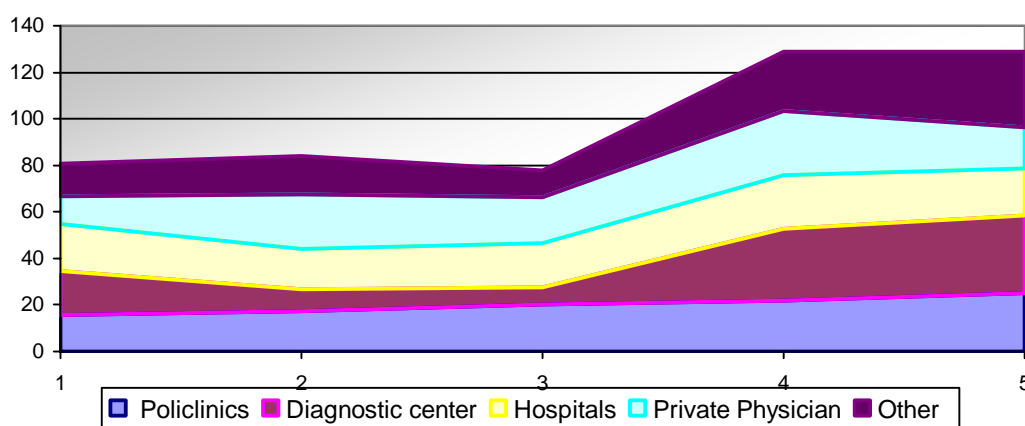*Graph 9. Utilization rates in healthcare by different institutions and quintiles of the population, 2001(%)*

Table18.Utilization rates in healthcare by different institutions and quintiles of the population, 2001(%)

Quintiles	1	2	3	4	5
Policlinics	15.53	17.18	20.29	21.95	25.05
Diagnostic center	19.05	9.52	7.14	30.95	33.33
Hospitals	20.30	17.29	19.17	22.93	20.30
Private Physician	11.76	23.53	19.61	27.45	17.65
Other	13.95	16.28	11.63	25.58	32.56

There is an improved distributional pattern for the discussed indicators for 2001 comparing to the previous year as Graph 8 and Table 18 show, except of the primary healthcare where the gap between the utilization rates of two highest and lowest quintile increase by 5 percent. The difference in the participation levels in hospitals decreases by 71 percent between two poorest and richest quintiles, comprising only about 6 percentage point. This positive change in the share of the beneficiaries for each quintile is also

depicted in the percentage of consulted people by quintiles, which only differs insignificantly, in average comprising 6.6 percent.

Graph 10. Utilization rates in healthcare by different institutions and quintiles of the population, 2002(%)
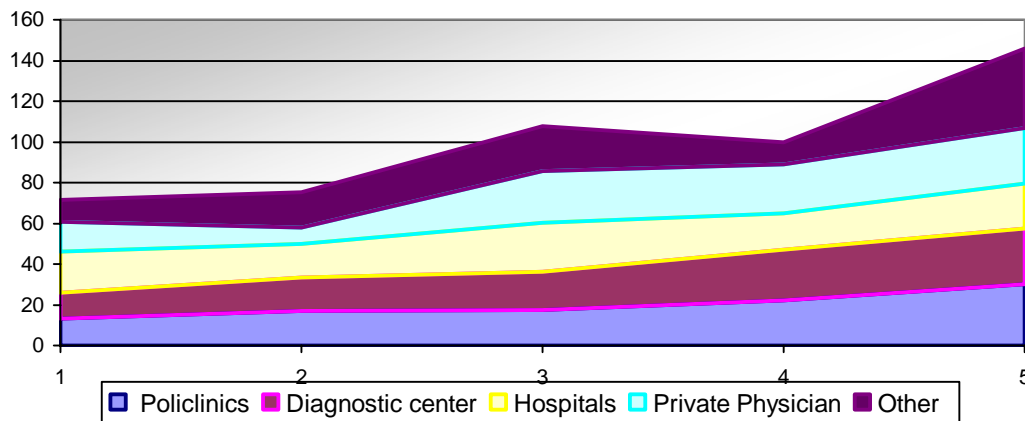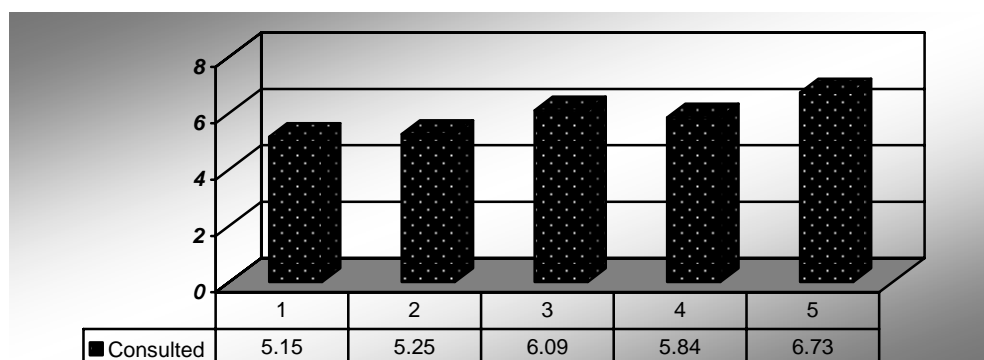

Table 19.Utilization rates in healthcare by different institutions and quintiles of the population, 2002(%)

Quintiles	1	2	3	4	5
Policlinics	13.41	16.92	17.36	22.20	30.11
Diagnostic center	12.50	16.67	18.75	25.00	27.08
Hospitals	20.28	16.13	23.96	17.51	22.12
Private Physician	14.52	8.06	25.81	24.19	27.42
Other	10.87	17.39	21.74	10.87	39.13

The utilization rates for the first two quintiles decrease for all healthcare services in 2002 except of the diagnostic centers improved by 2 percent. Two highest quintiles benefited more in 2002 from services provided by policlinics and private physicians relatively by 11 and 14 percent, while diagnostic centers, hospitals and other services demonstrate reduced levels relatively by 19, 8 and 14 percent. All these changes result in the growth of the difference between the participation rates of these two groups for policlinics and private physicians by 53 and 196 percent, while this indicator decreases for diagnostic centers, hospitals and other services relatively by 36, 43 and 22 percent though still providing higher benefits for the richest quintiles for all services. The improvement in the distribution of the services with higher share in total, particularly, hospitals from 1999 to 2002, links to the overall increase in the number of beneficiaries.

Graph 11. The Share of people suffered from illness and injury and consulted with health practitioner or visited a health center in each quintile,2002

	1	2	3	4	5
■ Consulted	5.15	5.25	6.09	5.84	6.73

As could be seen from Graph 5, the share of people consulted with health practitioner or visited a heath center in each quintile in total number of suffered from illness and injury, drastically increases in average 4 times comparing to 1999. Moreover the mentioned indicator shows relatively similar behavior through quintiles decreasing the difference between the richest and lowest quintiles by 25 percent.

*Table 20.Utilization rates in healthcare by different institutions and quintiles of the population, 2003(%)*

2003
Quintiles	1	2	3	4	5
Policlinics	15.58	19.22	19.22	20.52	25.45
Diagnostic center	12.5	18.75	21.88	25	21.88
Hospitals	17.5	15.5	21.5	20.5	25
Private Physician	29.03	11.29	20.97	24.19	14.52
Other	11.76	23.53	35.29	20.59	8.82

Trends of the main healthcare indicators are principally changed in 2003, while they are moving in the same direction from 1999 to 2002. There is a reduction in the gap between the participation rates of two highest and lowest quintiles for policlinics by 49 percent and an increase in the same indicator for hospitals by about 3 times in 2003 comparing to the previous year.

Summarizing the utilization rates among the population groups and their changes over the observed period of time, it is evident that highest quintiles of the population

benefit more from the provided services in primary and secondary healthcare. However the data are only roughly estimates because of no adjustment between paid and unpaid services conditioned by the lack of data. The prioritization of primary healthcare in social policies already affects the distributional structure of the services although not immediately. The change in the participation rates in other services and services provided by the private physicians towards the poorest groups indicate the efficiency of reforms in the perspectives of creating high quality of institutions. From one hand the decrease in the share of the richest quintiles in the mentioned services reveals their preferences towards the formal institutions, from the other hand the high participation rates for the poorest groups exhibits the development of the emerging private sector competing for the service delivery.

Graph 12. Percent of people suffered from illness and injury and consulted with health practitioner or visited a health center in each quintile, 2003(%)

	1	2	3	4	5
■ suffered from illness and injury and consulted	34.15	33.65	36.96	33.06	32.89
□ consulted	5.05	5.12	5.33	5.27	4.79
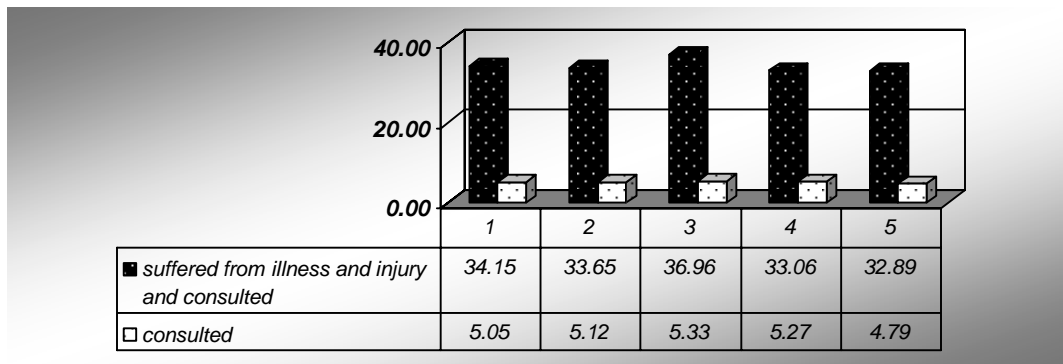
The share of the people using healthcare services while being either injured or ill has increased drastically since 1999 revealing the positive results of the conducted reforms and improved welfare indicators. Moreover, as could be seen from Graph 12, there is no significant difference in the percent of people in each quintile who suffered from illness and injury and consulted with health practitioner or visited health center amongst the population quintiles, comprising in average 34 percent. The similar behavior could be observed from the overall share of the consulted people in each quintile slightly fluctuating around 5 percent although still demonstrating very low involvement of the population in healthcare activities.

Healthcare sector has some specific differences comparing to other social sectors from the regional perspectives. In general, tertiary healthcare institutions are operating in

the Capital city providing services for the whole population of the country, thus imposing additional out-of-pocket expenditures for the other urban and rural population and making the services less accessible for them.

Table 21 Utilization rates in healthcare by different institutions and quintiles of the population in the different administrative units, 1999-2003(%)

	1999				
Quintiles	1	2	3	4	5
Policlinics					
Capital	19	19	20	16	26
Other urban	26	22	20	12	19
Rural	13	15	16	25	31
Hospitals					
Capital	21	14	14	33	19
Other urban	23	19	15	23	19
Rural	19	14	18	21	28
	2001				
Policlinics					
Capital	21	19	20	25	15
Other urban	33	22	22	13	12
Rural	8	18	21	23	30
Hospitals					
Capital	30	13	12	26	20
Other urban	24	25	28	16	7
Rural	20	21	19	16	24
	2002				
Policlinics					
Capital	15	26	18	18	23
Other urban	19	16	28	21	16
Rural	13	21	14	20	32
Hospitals					
Capital	23	25	14	16	21
Other urban	30	19	26	20	5
Rural	15	11	33	14	26
	2003				
Policlinics					
Capital	19	21	26	15	18
Other urban	30	23	17	18	12
Rural	13	23	14	22	27
Hospitals					
Capital	17	14	23	27	20
Other urban	35	22	17	9	17
Rural	17	15	20	22	25

For all years both for policlinics and hospitals in the rural areas two highest quintiles gain more from the healthcare services than two poorest ones except of 2001 where there is no difference in the utilization rates among these groups in hospitals. However in the secondary healthcare utilization rates have less discrepancy by 59 percent in the secondary healthcare between the richest and poorest quintiles of the households in 1999 comparing to the primary healthcare. This difference is decreasing over time resulting in the contrary behavior in 2003, where the primary healthcare institutions demonstrate 12 percent lower gap than the secondary ones.

The fact that policlinics and ambulatories are mostly covered under the Basic Benefit Packages System would appear to have insignificant impact on the participation rates by the different quintiles. This might be mainly explained by the information asymmetry especially in the rural areas and by the long distances between the beneficiaries and the healthcare institutions, imposing additional costs and playing tremendous role in the willingness and opportunities of the households to use healthcare services.

Graph13. Utilization rates by quintiles in policlinics in the Capital city, 1999-2003(%)
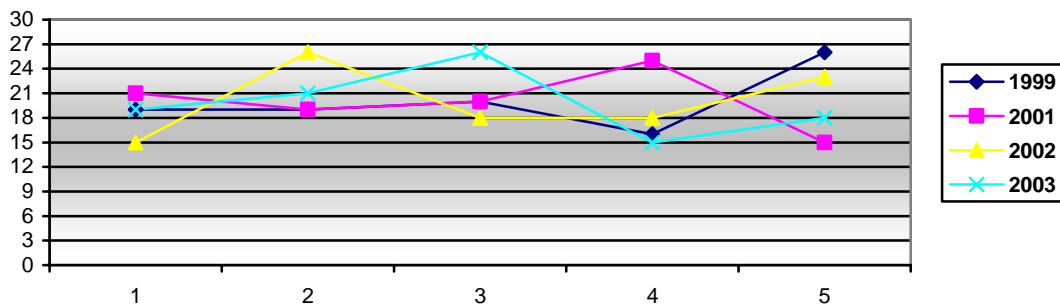
As could be seen from Graph 13 primary healthcare indicators also improve over time for the Capital city changing the difference from 5 percentage point between two highest and lowest quintiles to negative 7 percentage point.

The distinct trends between the rural areas and the capital city confirm the importance of the specific regional policy elaboration aimed to create more favorable conditions for the rural poors and increasing access to primary preventive healthcare services.
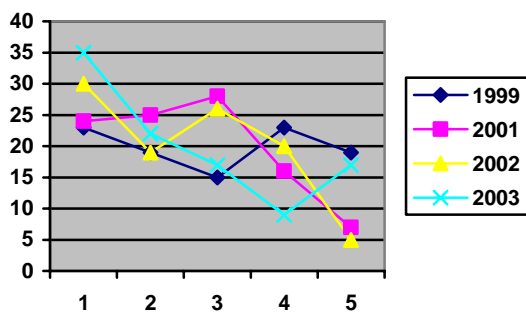
Graph14. Utilization rates by quintiles in hospitals in the Capital city,1999-2003(%)
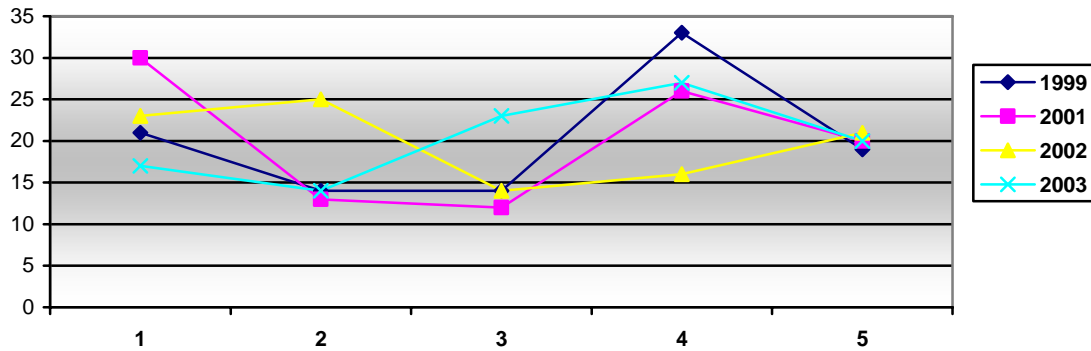

Comparing to policlinics the utilization rates in hospitals differ significantly amongst the various income groups. The participation rates are improving from 1999 to 2002 for the first two quintiles by about 39 percent and for the last two quintiles it decreases by 27 percent. However there is sharp change in these indicators in 2003 resulted in 16 percent overuse of the healthcare services by two highest quintiles comparing two lowest ones.

The volatile nature of utilization rates during the observed period of time certifies the necessity of further sector reforming and improvement of the Basic Benefit Package System addressing mechanisms.

Graph17. Utilization rates by quintiles in hospitals in other urban areas

Graph18. Utilization rates by quintiles in policlinics in other urban areas
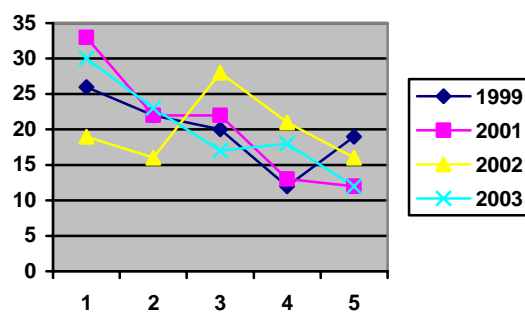
The healthcare utilization in other urban areas would appear to have more pro-poor tendency comparing to the Capital city and rural areas. For all years both primary and secondary healthcare institutions provide more services to two poorest quintiles than to the richest ones, except of enrollment rates in hospitals in 1999 and enrollment rates in policlinics in 2002, which were approximately equal for the mentioned quintiles. Despite

their pro-poor nature, the utilization rates both in policlinics and hospitals have no stable development for 1999-2003, the gap between two lowest and highest income groups for policlinics increases by about 30 percent allowing the poorest groups benefited more and for hospitals it reaches 31 percentage points from 0 level.

Despite the factors affecting the disparity between the Capital city, other urban and rural areas, including the distance of healthcare institutions and lack of information, the level of income, or in other words, the regional trends of the poverty incidence have a crucial role in the utilization rates by the population. The latter, in its turn, impacts the resource allocation of the Basic Benefit Package System by regions and among the population. For primary healthcare institutions receiving funding based on the capitation rate and catchment area fully covered under the Basic Benefit Packages indirect factors mostly determine the enrollment rates. On the contrary, the resource allocation for hospitals is conducted according to the poverty levels and therefore the other urban areas with higher poverty incidence, as could be seen from Table 22, are receiving more resources than other administrative units. Moreover besides the local hospitals the vulnerable groups of the population in other urban areas are using services in other tertiary healthcare institution within the Basic Benefit Package. From the other hand there is a less gap between the consumption level and therefore relatively low income level in other urban areas, which impacts the differences between the utilization rates among the quintiles.

Table 22. Armenia Poverty Indicators (%), 1999-2003[10]

	All	Urban	Yerevan	Other urban	Rural
98/99	56.3	62.7	58.7	66.5	47.7
2001	47	47.8	44.5	50.9	45.7
2002	49.3	52.5	45.4	59.8	44.7
2003	32.0	30.7	22.0	39.7	33.9

Poverty Family Benefits

Family Poverty Benefit system in Armenia was introduced in 1999 aimed to provide cash transfers for household considered extremely poor. At the beginning according to the official estimates of the poverty, 28 percent of household were receiving benefits with absolute number of 230, 000. The continuing reforming of the system and

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[10] Armenia Programmatic Poverty Assessment (FY05-07), Final Draft, April 2004

the reduction in the poverty levels, including extreme poverty, the number of households receiving Poverty Family Benefits decreased to 150, 000 households in 2002.

Table 23. Poverty Family Benefits, 1999-2003

	1999	**2001**	**2002**	**2003**
Poverty Family Benefit (mln.dram)	19,640.3	16,481.7	12,827.2	13,140.4
Spending as a share of the state budget,%	8.5	6.7	5.2	5.4
Spending as % of GDP	2	1.37	0.9	0.8

As could be seen from Table 23 the level of Family Poverty Benefits is declining in absolute terms, as a share of total budget expenditures and as a percent of GDP. Despite the sharp decrease in poverty family benefits, their levels per household do not differ much over time, thus revealing the fact that the main reason behind this is the decrease in poverty levels and better addressing mechanisms.

Despite the fact that Family Poverty Benefits target the poorest strata of the population, the statistical data show that the richest quintiles not only benefited but also benefit more than the poor groups in the beginning of the discussed period.

Table 24. Distributions of Family Poverty Benefits by quintiles of the population, 1999-2003(%)

Quintiles	1999	2001	2002	2003
1	19.4	17.72	16.47	25.06
2	19.29	16.35	18.54	26.21
3	20.49	19.52	19.19	27.11
4	19.71	22.17	20.39	21.61
5	21.1	24.23	25.41	0.00

As could be seen from Table 24 the share of benefits distributed to two lowest quintiles decrease by about 12 percent and the share of the richest ones increase by 14 percent in 2001 comparing to the previous year, resulted in an increasing gap between these two groups by about 5 times. These indicators are insignificantly improving for the following year reducing the difference in the utilization by 12.5 percent although still providing more subsidies to the richest groups of the population. The same tendency continues in 2003 bringing more considerable results. The participation rates for the first

two quintiles increase by 46 percent, while for two richest groups they decline by 53 percent resulting in 30 percentage points gap between these two groups towards more poor distribution.

Table 25. Distributions of Family Poverty Benefits by quintiles of the population in the different administrative units, 1999-2003(%)

1999					
Quintiles	1	2	3	4	5
Capital	7.00	5.70	4.59	4.17	4.04
Other urban	8.97	7.47	6.28	5.20	3.47
Rural	6.91	8.53	9.22	8.99	9.47
2001					
Capital	5.91	4.33	5.52	5.46	5.73
Other urban	8.18	5.87	5.30	5.30	3.77
Rural	7.09	7.71	9.29	10.61	9.93
2002					
Capital	4.89	4.13	4.73	5.72	5.44
Other urban	7.96	7.81	6.72	6.45	4.73
Rural	5.46	8.03	8.18	8.03	11.71
2003					
Capital	3.98	5.51	3.80	4.86	6.07
Other urban	9.82	8.84	7.31	6.37	4.48
Rural	6.72	6.99	7.46	8.70	9.08

As could be seen from Table 25 the distributional structure of the benefits changes for the Capital city over time from 12.7 percent of the benefits going to two lowest groups in 1999 to 9.49 percent in 2003. The share of the richest quintiles grows by 33 percent, mostly determined by the sharp 36.41 percent increase in 2001. Other urban areas demonstrate the same higher benefits for the poors than for the richest groups both in 1999 and 2003, although fluctuating insignificantly between them. Two poorest quintiles benefit by about 8 percent more than two richest ones.

In the difference of the Capital city and other urban areas, targeted households in the rural areas gain less from the poverty benefits. Moreover their share declines from 1999 to 2002 by 13 percent, while the share of two richest groups increases by 7 percent. In 2003 the difference between these two quintiles decreases by 35 percent still maintaining higher share of non-poor groups, despite the fact that the fifth quintile do not receive any contribution.

Gross Benefit Incidence Analysis

The benefit incidence is computed based on the government expenditures in three directions: education, health and family poverty benefits, which have the most distributional impact on the different groups of population and are directly linked to the provision of the client-oriented public services. The analysis focuses on the main part of the expenditures within each sector excluding the administrative and non-related spending resulting in review only in average relatively 74.88, 75.07, 71.51 and 72.01 percent of the government expenditures allocated to these sectors in 1999, 2001, 2002 and 2003.

Benefit Incidence in education captures three academic level: pre-primary, primary[11] and higher education.

Table 26 .Benefit Incidence in Pre-primary Education, 1999-2003

Quintiles	1999	2001	2002	2003
1	0.67	0.36	0.55	0.76
2	0.78	0.70	0.87	0.72
3	0.65	0.50	0.53	0.65
4	0.78	0.74	0.95	0.59
5	0.57	0.86	0.89	0.98

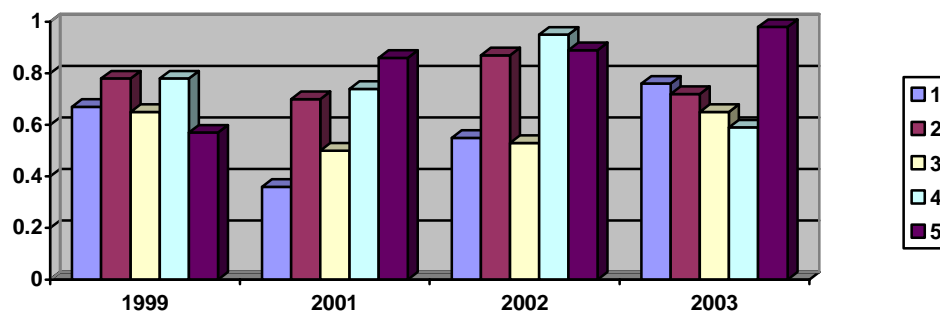*Graph 19.Benefit Incidence in Pre-primary Education, 1999-2003*

Table 26 shows benefit incidence for the pre-primary education for 1999-2003 by quintiles of the population, in general, reflecting main trends discussed above. As could

[11] Primary education is here is considered as a general education including primary, lower secondary and upper secondary academic

be seen, in average, public expenditures to the different quintiles, lie within (0.2) interval reflecting the insignificant share of resource allocation at the pre-primary educational level. The participation rates for two lowest quintiles sharply decreases in 2001 by 27 percent conditioned by the overall reduction in number of pre-primary establishments. This indicator improves for 2002 and 2003 relatively by 34 and 3 percent. In 2002 it is mostly determined by an increase in the share of the local education expenditures in the total education expenditures by about 13 percent and by growing participation rates by 11 percent. The positive changes in this indicator in 2003 is affected by an increase in the participation rates by about 6 percent in 2003 although the share of public spending decrease by about 3.4 percent.

Though the share of two richest quintiles in the preprimary education services shows volatile behavior over time, it increases by 15 percent from 1999 to 2003 resulting in still higher level of service consumption by this group of the population by 0.10 points comparing to the poorest ones. These changes in the utilization rates as well as in public expenditures lead to higher benefits for the richest quintiles in 2003 than for the poorest ones, while having more distributional impact in 1999, where the gap between these two groups is the same, but with higher benefits for the poorest quintiles.

Table 27 .Benefit Incidence in Primary Education, 1999-2003

Quintiles	1999	2001	2002	2003
1	5.08	3.66	4.61	5.86
2	5.25	7.09	7.27	5.49
3	5.25	5.03	4.44	6.80
4	4.82	7.55	7.98	6.81
5	4.50	8.69	7.45	8.33

The budget allocations to the primary education have the highest share in the total education expenditures resulted in higher incidence levels. As could be seen from Table 27 at primary academic level the distributional pattern is changing over time from more poor oriented structure towards the opposite where the gap between two highest and lowest quintiles increases from negative 1 percentage point to about positive 4. This is conditioned by an increase in the incidences for both groups, but much higher for two richest quintiles by 62 percent than by the poorest ones by 10 percent.

Considering that these estimates are not adjusted for the demographical structure of the population and its changes over time, we can only roughly conclude that the richest

quintiles benefit more from public services than the lowest ones. Taking into the account that enrollment rates at primary and lower secondary education levels have no significant disparities, the differences in the utilization rates are mostly caused at upper secondary level. This is conditioned by higher trade-offs for the poorest strata of the population.

Table 28 .Benefit Incidence in Higher Education, 1999-2003

Quintiles	1999	2001	2002	2003
1	0.36	1.02	0.44	0.71
2	0.83	0.69	1.10	1.04
3	0.86	1.06	1.03	1.37
4	1.41	0.88	1.54	1.21
5	1.55	1.76	1.98	1.37

The benefit incidence in higher education shows improving tendency over time, where the gap between the discussed two groups decreases by about 53 percent, although still generating by 0.82 percentage point more benefits for the richest groups of the population. This is conditioned by the improvement in the utilization rates in 2003, where the difference between two richest and poorest quintiles decreased by 59 percent, while the share of the public spending on this level decreased by 9 percent.

The share of healthcare expenditures in total social spending grows over time from 24.3 percent in 1999 to 30.3 percent. Despite this the benefit incidence in healthcare is very low considering the fact that we review only expenditures in the primary and secondary healthcare institutions that are included in the Basic Benefit Package. The estimation on the incidences here is very roughly because of the assumption that all groups of the population use free of charge public services because of the lack of data. However this assumption is based on the fact that as discussed above the informal payments and non-public financing are very high, the resources allocated for the Basic Benefit Package do not fully cover the costs, and moreover they are internally managed by the institutions. Therefore it can be assumed that this system is not efficient in addressing the needs of poors and therefore its benefits are spread over all groups of the population.

Table 29. Benefit Incidence in Healthcare, 1999-2003

	Policlinics				Hospitals			
Quintiles	1999	2001	2002	2003	1999	2001	2002	2003
1	0.34	0.29	0.28	0.62	0.61	0.55	0.80	0.94
2	0.35	0.26	0.46	0.69	0.70	1.16	1.25	1.67

3	0.37	0.27	0.33	0.85	0.72	1.35	0.85	1.00
4	0.30	0.34	0.32	0.50	1.13	1.53	1.20	1.60
5	0.49	0.20	0.42	0.58	1.39	1.96	1.93	1.93

As could be seen from Table 29 the benefit incidence reflects the prioritization of the primary healthcare in the sector, which proved to have more pro-poor effect. Comparing to 1999 the incidence increases exceptionally for all quintiles in 2003 relatively by 81, 97, 128, 68 and 19 percent, although there is no significant change in the gap between the lowest and richest quintiles. Despite the focus on primary healthcare, the public expenditures allocated to the hospitals still remains high. The benefit incidence increases exclusively for all quintiles increases but more for the poorest groups than the riches ones resulting in the decrease of the gap between these two groups from 1.20 to 0.93.

Family poverty benefits declines from 35.11 percent to 18.95 for 1999-2003 reflecting the reduction in the poverty level of the country and improving addressing of targeted groups. Despite the fact that the Family Poverty Benefits aims to subsidize only the households which are considered poor, the statistical data shows that richest quintiles also largely benefit from the system.

Table 30. Incidence in the Poverty Family Benefits,1999-2003

Quintiles	1999	2001	2002	2003
1	6.81	4.71	3.63	4.75
2	6.77	4.34	4.09	4.97
3	7.19	5.18	4.23	5.14
4	6.92	5.89	4.50	4.09
5	7.41	6.44	5.61	0.00

As for all discussed indicators the incidence of the Poverty family benefits also shows less equal distribution in 2001 and improving tendency for the rest of the period. The general decrease in the incidences for all population groups is determined by the sharp reduction in total expenditures by 15.4 percent in absolute terms, while its share in the total expenditures decreases by 46 percent revealing the fact that the government redistributes resources from the direct subsidizing to the indirect transfers. This could be considered as a positive transformation to more efficient policies because of higher externalities from providing particular public services which poor households are unable to afford by the subsidies given by the Government. From the other hand the reduction in

Poverty Family Benefits conditioned by the overall decrease in the number of beneficiaries considered as poor.

Until 2002 two highest quintiles not only were receiving benefits, but also were benefiting more that the targeted poorest groups of the population. The situation improves in 2003, where the second group gain 5.6 percentage point more than the first one.

Summarizing, the in-kind total transfers to the different groups of the population demonstrate decreasing behavior by 3.83 percent for 1999-2003. This is primarily explained by the declining level of the Poverty Family Benefits over time.

Table 31. Gross Benefit Incidence, 1999-2003

Quintiles	1999	2001	2002	2003
1	13.88	10.59	10.31	13.63
2	14.68	14.24	15.04	14.57
3	15.06	13.39	11.40	15.81
4	15.35	16.94	16.49	14.80
5	15.91	19.91	18.27	13.19

Graph 20. Gross Benefit Incidence,1999-2003
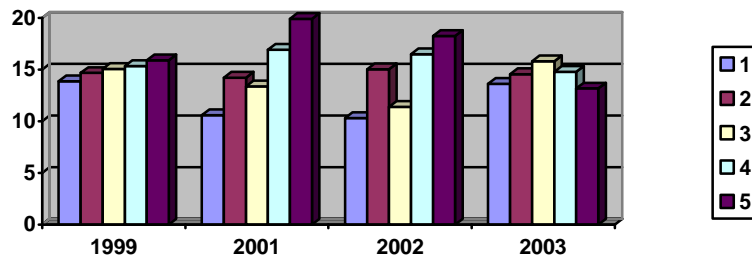
The gross benefit incidence shows the total share of social public spending allocated to each quintile depending on the participation rates by quintiles and public expenditures in three sectors. As could be seen from Table 31 and Graph 20 the benefit incidences for two poorest groups are drastically declining in 2001 comparing to 1999 by 13 percent, while for two highest quintiles this indicator increases by 17 percent resulted in about three times higher gap between these two groups. From 2001 to 2003 these

indicators are improving in the result of increase in the utilization rates by the first group by about 14 percent and decrease for the second group by about 24 percent. These developments result in approximately equal distribution of the main social expenditures between the different income groups of the population in 2003.

The equal distribution of the public recourses among the different income groups of the population in the economy, where still 32 percent of the population is below the poverty line, raises an important issue. The same level of benefits provided to all households certifies poor and ineffective addressing mechanisms used by the Government in designing and implementing public policies aimed to target the vulnerable groups of the society.

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