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# Seguro Popular: Incidence Analysis

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## Abstract

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*This paper presents a preliminary evaluation of the distribution at the household level of benefits from the Sistema de Protección Social en Salud (SPSS), or Seguro Popular, in its initial phase of operations. This health protection scheme was introduced in 2003, through a mayor reform of the Ley General de Salud in Mexico. This is the first benefit incidence analysis available for this program, based on nationally representative household survey data, independent from the administrative records of the program. The paper also evaluates the effects on the use of public health services, private (out-of-pocket) health spending, and catastrophic health expenditures among poorer households.*

## Resumen

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*Este trabajo presenta una evaluación preliminar de la distribución de los beneficios del Sistema de Protección Social en Salud (SPSS), o Seguro Popular, en su fase inicial de cobertura. Este esquema de protección a la salud se introdujo en 2003, por medio de una reforma amplia de la Ley General de Salud en México. Este es el primer análisis de incidencia de beneficios disponible para este programa a partir de datos representativos a nivel nacional, independientes de los registros administrativos del programa. El trabajo también evalúa los efectos sobre el uso de los servicios de salud públicos, del gasto privado (de bolsillo) en salud, y del gasto catastrófico en salud entre los hogares pobres.*



## *Introduction*

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This paper presents a preliminary evaluation of the distribution of the coverage of *Seguro Popular* and its effect on use of public health services, private health spending, and incidence of catastrophic health expenditures among poorer households. The analysis is relevant in the present context (decentralization and service delivery to the poor) for two principal reasons. First, the creation and rapid expansion of *Seguro Popular* is of interest in its own right, arguably representing the most ambitious effort to extend coverage of basic health to the uninsured since the creation of the *Secretaría de Salud* (SSA) in 1943. Secondly, the decentralized design of the *Seguro Popular* reform implies both opportunities and challenges which may be of more general cross-sectional interest.

The paper is structured as follows. Section I describes the objectives, identification criteria and selection procedures of the program as specified in its affiliation and operational rules (DOF, 15.4.05). Section II reviews the distributive indicators of the program obtained from administrative records and presents the first benefit incidence analysis available for this program, based on nationally representative household survey data (the *Módulo de Programas Sociales* commissioned by SEDESOL as part of ENIGH, 2004).<sup>1</sup> The distribution of benefits from the program is estimated separately and jointly with complementary and substitute programs (*Oportunidades* and formal sector social security). Section III presents preliminary evidence comparing the uninsured with and without *Seguro Popular*, and the insured, in terms of use of public health services, private health spending, and the incidence of catastrophic health expenditures. Finally, section IV presents conclusions and policy recommendations.

### ***1. Identification and affiliation of beneficiaries***

*Seguro Popular* specifies distributive objectives at both the state and household level. At the state level a stated objective of *Seguro Popular* is to reduce inequalities in public per capita health spending across states (as well as across public health insurance schemes). At the household level the aim is to achieve full coverage of the uninsured, minimizing vulnerability to catastrophic and impoverishing health expenditures, thus reducing inequalities of basic health opportunities. One immediate challenge for the present analysis is that the program is in an (early) transition phase (2004-2010) towards these objectives, to be reached only by the end of the current decade. Before full coverage is achieved, the identification of beneficiary families through socioeconomic characteristics is necessary for two purposes: 1) to target the most vulnerable

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<sup>1</sup> Access to this Module, provided by Miguel Székely and Mónica Orozco from SEDESOL, is gratefully acknowledged.

and needy first,<sup>2</sup> and 2) to assign beneficiaries to the relevant contributory bracket.

According to the rules of the program, state governments play an important role in this process. First, the number of beneficiaries to be affiliated, and thus the allocation of federal *Seguro Popular* funds to the states and the corresponding state contributions, is jointly defined by the federal and state governments through an *Acuerdo de Coordinación*. Secondly, state health ministries set up *Regímenes Estatales de Protección Social en Salud* (REPSS) which are responsible for the promotion of the program and affiliation of beneficiaries. According to the rules of *Seguro Popular*, affiliation should be implemented in modules where a socioeconomic questionnaire<sup>3</sup> is applied to identify and classify applying beneficiaries into income deciles and thus contributory categories, through a statistical model of discriminant analysis provided by the *Comisión Nacional de Protección Social en Salud* (CNPSS), the central coordinating agency.<sup>4</sup> According to SSA, this instrument and the statistical procedure is similar to the one used by *Oportunidades* to select beneficiaries.

In contrast to the latter program, however, the operational rules of *Seguro Popular* allow exceptions to this procedure, opening up the door for some discretionality at the federal or state level. The rules allow for the automatic affiliation of beneficiaries of other federal social programs. In the case of *Oportunidades* this is bound to improve the targeting of *Seguro Popular*, as will be seen below, but in the absence of a unified identification system, the targeting criteria of other programs, like LICONSA, may be much less effective.<sup>5</sup> For example, the government of the Distrito Federal has used the *Liconsa* network to direct its beneficiaries for affiliation to *Seguro Popular* modules in health clinics.

More surprisingly, the rules allow for collective affiliations of specific groups, without individual evaluations. These may be negotiated by any government organization,<sup>6</sup> but also, in principle, by unions, production organizations or any other NGO.<sup>7</sup>

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<sup>2</sup> “La promoción para la afiliación tendrá como prioridad, en los primeros años, a la población de las áreas de mayor marginación, zonas rurales e indígenas.” (CNPSS, 2005).

<sup>3</sup> *Cédula de Características Socioeconómicas del Hogar*, (CECASOEH).

<sup>4</sup> “Para llevar a cabo la promoción y afiliación de las familias susceptibles de incorporarse al Sistema, los REPSS deberán crear *Módulos de Afiliación y Orientación* (MAO), así como brigadas que se encarguen de estas tareas. Los MAO y las brigadas estarán bajo la responsabilidad de las entidades federativas y su número dependerá de la meta de afiliación establecida en los Acuerdos de Coordinación.” (CNPSS, 2005).

<sup>5</sup> See Scott, (2005), for an incidence analysis of targeted social programs in Mexico based on the *ENIGH 2002-Módulo Social*, revealing wide differences in targeting performance, from *Oportunidades*, in one extreme, to *Liconsa*, in the other, which at least in 2002 lacked any degree of progressivity.

<sup>6</sup> “...cualquier institución gubernamental podrá gestionar la afiliación colectiva al Sistema de familias susceptibles de incorporación” (*Lineamientos*, 19).

<sup>7</sup> The administrative reports of the program do not identify the number of beneficiaries affiliated through either of these procedures, but apparently no affiliation of the latter type has as yet been implemented (comment by Hector Peña, *Unidad de Análisis Económico*, SSA, 2/9/2006).

## 2. Targeting of Seguro Popular

To analyze the targeting of *Seguro Popular* at the household level we will consider and contrast two different sources of information: a) the monitoring information generated by the program, based on its administrative identification procedures and used to allocate beneficiaries by income deciles to determine their contributory status,<sup>8</sup> and b) the *Encuesta Nacional de Ingreso y Gasto de los Hogares* (ENIGH) for 2004, a nationally (and rural/urban) representative income and expenditure survey with a sample of 25,000 households. The published ENIGH 2004 questionnaire only ask about *Seguro Popular* in its expenditure module, and thus captures *contributing* households exclusively, which represent only 7 percent of all beneficiaries according to administrative records, and 4.7 percent in the ENIGH sample. Fortunately, a module on targeted social programs [*Módulo de Programas Sociales*, (MPS)] was commissioned by SEDESOL as part of ENIGH 2004, which includes all beneficiaries of *Seguro Popular*, contributory or not.<sup>9</sup> This Module was applied to all households in the ENIGH sample.

The sample of *Seguro Popular* beneficiary households captured in the MPS includes 920, representing 890,382 households nationally, while administrative records report 1.5 million families affiliates by the end of 2004. The difference may be explained by various factors. First, the ENIGH goes to the field in the third trimester, but the *Seguro Popular* increased its affiliation from 800 to 1.5 million in the second semester of 2004. Second, the concept of household used in ENIGH does not correspond exactly to the concept of beneficiary family (or *family nucleus*) used by the program,<sup>10</sup> which allows the possibility of more than one beneficiary *family* per household. Finally, there may of course be large sampling errors given the relatively small coverage of the program at this stage.

The distributions by deciles (or coarser partitions, when needed) based on this data presented in the tables and figures in this paper use *total current income per capita net of public monetary transfers* as the *welfare* (ordering) concept, and *households* as the relevant unit to be ordered. Netting monetary transfers is required to obtain a common welfare concept for public transfers which is unaffected by the transfers themselves. This is the concept adopted in the cross-sectoral benefit incidence analysis applied in the *Mexico Public Expenditure Review* (World Bank, 2004). It is especially relevant in the present context because we will compare this distribution with *Oportunidades*, which represents a significant monetary transfer for the poor. Households are used as the relevant unit in order to make these orderings comparable with the deciles generated by the program, though it should be noted that poorer households are

<sup>8</sup> The latest administrative report available when the present study was completed was dated June 30, 2005.

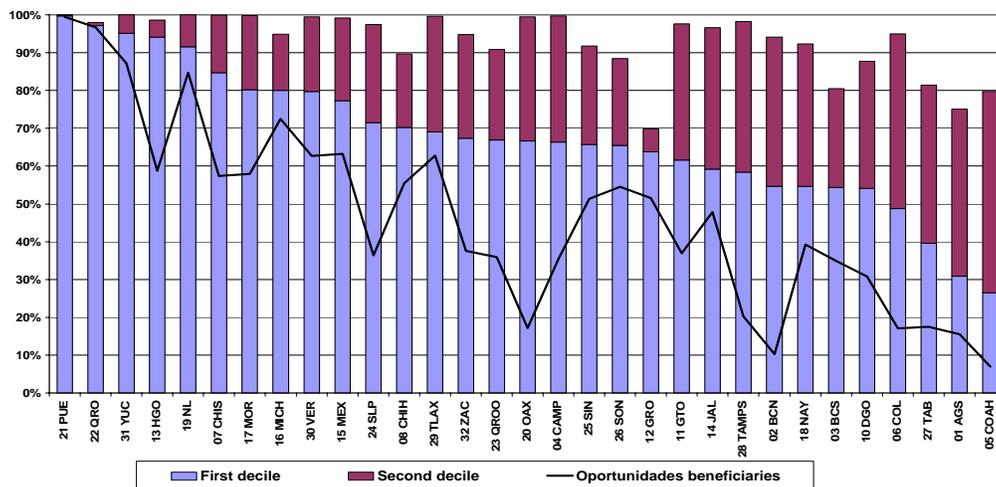
<sup>9</sup> The specific question asked is: “¿Algún miembro de este hogar o su hogar está inscrito en el Seguro Popular de salud?”. Though the module was also included in the ENIGH 2002, it did not include a question about *Seguro Popular*, which then had a reported coverage of only 300,000 households by the end of that year.

<sup>10</sup> Art. 77 bis 4, Ley General de Salud.

on average larger than richer (ordered by per capita income), so household deciles overestimate the share allocated to the poorest *population* deciles [for this reason, World Bank (2004) reports benefit incidence by population deciles].

According to the administrative records of *Seguro Popular*, of the 2 million beneficiary families affiliated by June 2005, 93 percent were classified in the first quintile of the income distribution. Around half of the states report almost 100 percent targeting at this income group, and only five report targeting close to or below 80 percent (Figure 1). In all but three states the majority of beneficiaries are even classified in the first decile, and in five of them more than 90 percent are so classified. There is a clear correlation between the percentage of affiliates classified in this income group and the percentage of affiliates who are also *Oportunidades* beneficiaries, and the two states classifying close to 100 percent of affiliates in the first decile (Puebla and Querétaro) report almost identical percentages of *Oportunidades* beneficiaries, suggesting that they may be classifying the latter automatically into this decile. On the other hand, there are cases like Oaxaca, which classifies almost 70 percent of affiliates in the first decile, but reports less than 20 percent of affiliates in *Oportunidades*.

**Figure 1. *Seguro Popular* beneficiaries in first two income deciles and *Oportunidades* (% of total beneficiaries in state)**



Source: CNPSS, (2005).

It should be obvious that these levels of targeting efficiency are highly improbable even before they are tested against independent survey data. It would imply that all states gave absolute priority to selecting the extreme poor and turn back practically all applicants above the second decile, that they achieved this targeting objective with an unprecedented degree of success, and that almost full coverage of *Seguro Popular* among the extreme poor has already been achieved nationally, and even *overshot* in some states. This result is also

inconsistent with the more observable (than income) socioeconomic characteristics of beneficiaries reported in the administrative data (Table 1): 60 percent of beneficiaries live in urban areas, only 25 percent in high or very high marginality areas, 6 percent in indigenous communities, and 40 percent are also *Oportunidades* beneficiaries.

**Table 1. Selected characteristics of *Seguro Popular* Beneficiaries (30 June, 2005)**

Total	1,973,754	
Rural	840,254	40.6%
With <i>Oportunidades</i>	812,893	39.2%
In High or Very High Marginality Localities	522,652	25.2%
In Indigenous Communities (40% or more of the population)	119,764	5.8%

Source: CNPSS, (2005).

Table 2 compares the distribution of beneficiary families reported by the program, with the distribution of beneficiary households observed in ENIGH, considering different income concepts and units. The distribution is not very sensitive to the income concept, but it is to the choice of unit. The distribution obtained from ENIGH is still progressive, but the share of the poorest quintile is less than half of what the program reports: 45 percent in terms of household deciles (37% in population deciles). The difference may reflect in part methodological and statistical differences between the discriminant analysis used to *impute* income in *Seguro Popular* and the income data reported in ENIGH 2004, as is also observed in the case of *Oportunidades*.<sup>11</sup> However, a difference of this magnitude suggests a substantial targeting error associated with the (decentralized) operation of the program's identification procedures. This will be taken up in the concluding section.

<sup>11</sup> The discriminant analysis used in 2004 were based on the ENIGH, 2002. The rules of the program require this analysis to be updated using the current ENIGH (*Lineamientos*, Cap. VII).

**Table. 2 Distribution of *Seguro Popular* beneficiaries by household (or family) deciles ordered by income per capita: Administrative records vs. ENIGH, 2004**

	Administrative Records*		ENIGH (Módulo Social) 2004		
	2004	2005 (June)	Households ordered by income per capita	Households ordered by income per capita net of transfers	Population ordered by income per capita net of transfers
1	67.6%	63.0%	26.1%	26.2%	19.6%
2	27.4%	29.9%	19.2%	19.6%	17.6%
3	4.7%	5.5%	17.5%	14.8%	15.4%
4	0.1%	1.0%	10.3%	11.2%	13.0%
5	0.1%	0.3%	7.8%	8.1%	8.1%
6	0.0%	0.2%	6.9%	7.0%	8.3%
7	0.0%	0.1%	5.0%	5.4%	6.2%
8	0.0%	0.1%	3.1%	3.3%	4.9%
9	0.0%	0.0%	3.6%	3.8%	5.6%
10	0.0%	0.0%	0.4%	0.6%	1.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Note: The decile distribution of beneficiaries reported from the administrative records of the program is described as “families per income decile affiliated between the first semester of 2004 and the first semester of 2005”.

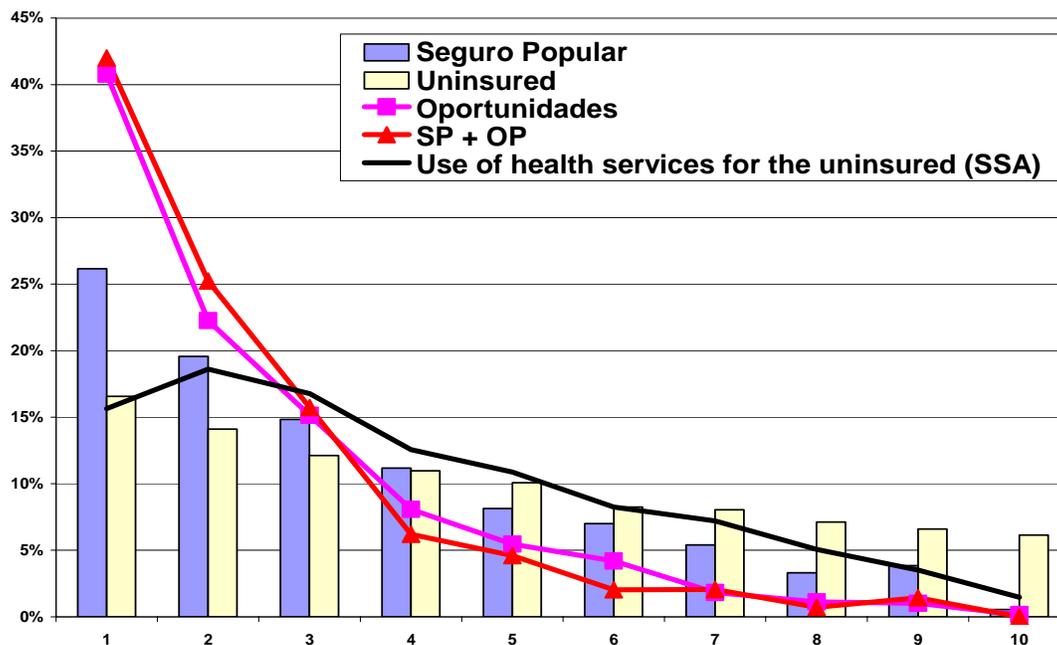
Source: Author’s calculations using the *Módulo Social* of ENIGH, 2004; administrative records reported in CNPSS, (2005).

To place the observed distribution of *Seguro Popular* in context, Figure 2 and 3 compare it with distribution of the uninsured,<sup>12</sup> of *Oportunidades*, and of the (use of the) principal health services for the uninsured (SSA, IMSS-*Oportunidades*, *Institutos Nacionales de Salud*), and for the insured (IMSS, ISSSTE, PEMEX).<sup>13</sup> On the one hand, *Seguro Popular* affiliation in 2004 was more progressive (pro-poor) than both the overall use of (untargeted) SSA services and the distribution of the uninsured –the long-term target population of the program. On the other, however, the observed degree of progressiveness of *Seguro Popular* falls short of that achieved by both *Oportunidades* and IMSS-*Oportunidades*.

<sup>12</sup> In this paper a household is classified as *insured* if at least one of its members is covered by any of the public social security schemes or private health insurance, and *uninsured* otherwise.

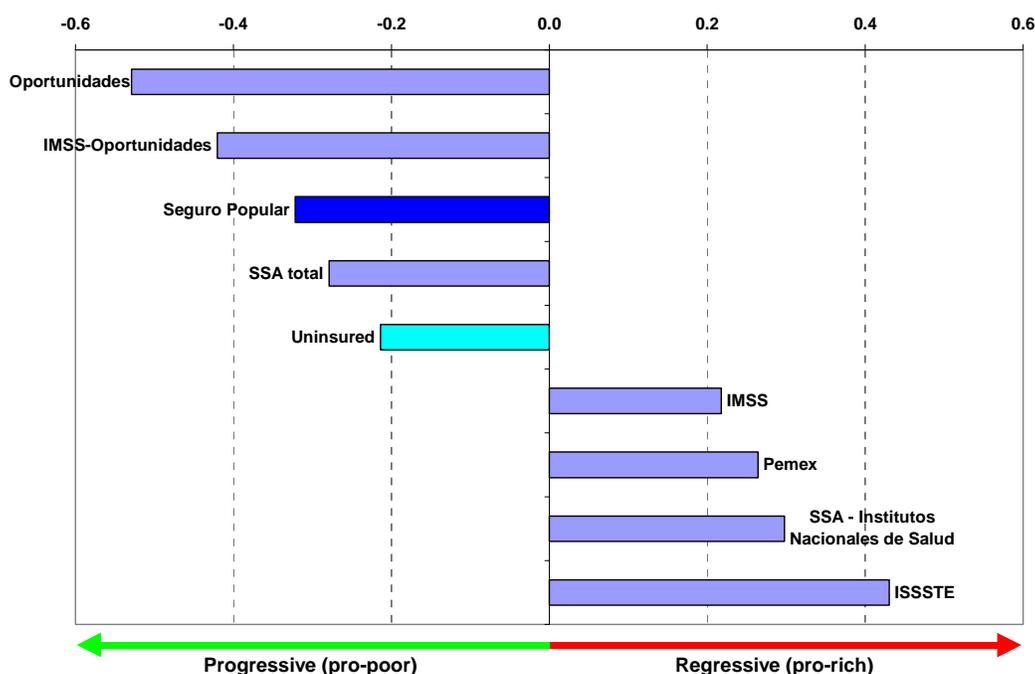
<sup>13</sup> All of these are obtained from ENIGH on a common methodological basis, except utilization of health services in IMSS-*Oportunidades* clinics and *Institutos Nacionales*, which are obtained from the *Encuesta Nacional de Salud*, 2000, (ENSA).

Figure 2. Distribution of *Seguro Popular* and *Oportunidades* beneficiary households, of (use of) SSA health services, and of the uninsured population (household deciles ordered by income per capita net of transfers)



Source: Author's calculations using the *Módulo Social* of ENIGH, 2004.

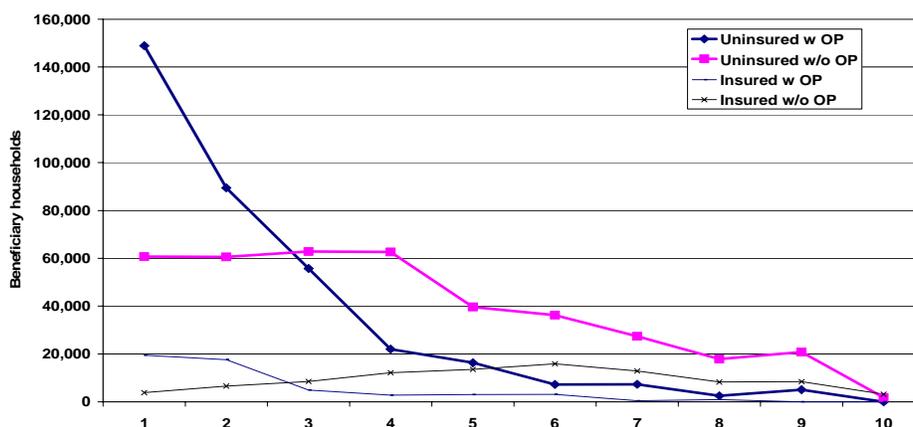
**Figure 3. Concentration Coefficients for *Seguro Popular* and other health programs and uninsured population (population ordered by income per capita net of transfers)**



Note: In the case of health service providers, reported distributions refer to use of services.  
 Source: *Oportunidades*, *Seguro Popular*, SSA, and Uninsured: author's calculations using ENIGH, 2004, (including Módulo de Programas Sociales). The rest: Scott (2005), using ENIGH 2002 (including Módulo de Programas Sociales), except IMSS-Oportunidades and Institutos Nacionales, which were obtained from ENSA, (2000).

Note also that the *Seguro Popular* beneficiaries who are also in *Oportunidades* are distributed as the rest of *Oportunidades* beneficiaries. As Figure 4 shows, in contrast with the highly progressive distribution of the *Seguro Popular* plus *Oportunidades* beneficiaries, the rest of the *Seguro Popular* beneficiaries present a flat distribution in this segment. This suggests that the discriminating power of *Seguro Popular* in the lower 40 percent of the income distribution is *entirely* due to the *Oportunidades* selection mechanism (according to the *Seguro Popular* rules, *Oportunidades* applicants would be automatically affiliated into *Seguro Popular* without a further socioeconomic test).

**Figure 4. Distribution of *Seguro Popular* beneficiary households and *Oportunidades* (household deciles ordered by income per capita net of transfers)**



Households ordered by current income per capita net of transfers. Households are classified as insured if at least one of its members is covered by any of the public social security schemes or private health insurance, and *uninsured* otherwise.

Source: author's calculations using the *Módulo Social* of ENIGH, 2004.

Note also that some *Seguro Popular* beneficiaries live in insured households (16 percent), as defined in this paper<sup>14</sup>, and their distribution is also reported in Figure 4.

In addition to some of the non-poor being wrongly classified as poor (inclusion error), some of the poor may be wrongly classified as non-poor (exclusion error). The latter can be tested in the present case by observing the distribution of *contributing Seguro Popular* beneficiaries, though this evidence must be interpreted with caution given the small sample sizes involved (Table 3). The percentage of contributors is lower among poor beneficiaries than among richer ones and average contributions (per contributing beneficiary) are lower, but the difference between extreme poor (first quintile) and non-poor beneficiaries is relatively small, and the former should of course not be making any contributions according to the *Seguro Popular* rules.<sup>15</sup>

<sup>14</sup> See footnote 13 for definition. These cases do not necessarily violate the requirement that *Seguro Popular* beneficiaries not be social security rightholders, both because we include private insurance and because the coverage of social security within the household may not overlap the coverage of *Seguro Popular*.

<sup>15</sup> In addition to the small sample size, the wide variation of reported contributions is inconsistent with the range of contributions specified by the rules of the program, suggesting that some households may have misreported these contributions (for example, confusing annual and trimester amounts). Also, since some households may contain more than one beneficiary family, they may be reporting multiple contributions.

**Table 3. Family contributions to *Seguro Popular* (*Cuota familiar*)**

	Percentage of beneficiaries contributing	Average observed contribution (of contributing beneficiaries)	Average contribution implied by Seguro Popular Rules (given observed distribution of beneficiaries)
20% poorest	3.2%	228	0
40% poorest	3.4%	236	235
60% richest	8.0%	393	989

Households ordered by current income per capita net of transfers.

Source: author's calculations using the *Módulo Social* of ENIGH, 2004.

Demographically (Table 4), *Seguro Popular* benefits children and youngsters disproportionately, but the old are only slightly overrepresented in the program with respect to their share in total population.

**Table 4. Distribution by age groups: 2005**

	Population	Seguro Popular
0-10	21.8%	27.7%
11-20	20.7%	24.1%
21-30	18.2%	11.7%
31-40	14.8%	13.5%
41-50	10.8%	9.5%
51-60	6.6%	5.9%
61+	7.1%	7.5%

Sources: CONAPO 2000-2050, population projections. CNPSS, (2005).

Finally, while *Seguro Popular* has now been introduced in all states,<sup>16</sup> at present, coverage and spending levels differ widely between states (Table 5, Figure 5 and 6), and the observed differences are not consistent with the compensatory objective of converging towards equal spending per capita across states. While some states report coverage rates above 100 percent of their estimated uninsured (Tabasco, Colima, Aguascalientes),<sup>17</sup> many others have yet to achieve

<sup>16</sup> Note that in the case of DF, which accepted the program only in 2005, and does not appear in 2005 administrative coverage and spending data, nevertheless the ENIGH, 2004 reports 34,622 households claiming to be beneficiaries of *Seguro Popular* (39 households in the sample). A probable explanation for this is that *Seguro Popular* was confused with the program of *Apoyos para Adultos Mayores* of the DF government, offering health coverage and a pension to all persons of 70 or above.

<sup>17</sup> Coverage rates above 100 percent may be explained by several reasons: a) the difference in the definition of beneficiary units (*nuclear families*) and the estimated objective population of uninsured households, allowing multiple beneficiary families per household; b) errors in the estimation of the latter objective population for 2004, which was projected from the 2000 Census (SSA, 2004), and c) the fact that this objective population has been maintained fixed for 2005.

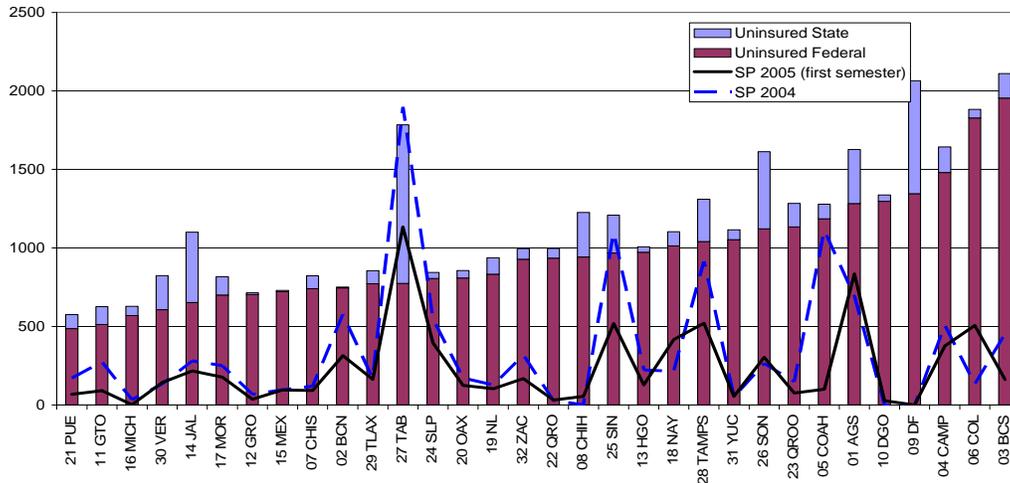
10 percent. *Seguro Popular* spending varies similarly, both per uninsured and per *Seguro Popular* beneficiary.

**Table 5. Distributions of *Seguro Popular* beneficiaries and *Seguro Popular* transfers spending by State**

States	Uninsured families	Seguro Popular Families			Seguro Popular spending			
		ENIGH 2004 Módulo Social	Seguro Popular Records		Total (million MP)		per affiliated family (MP)	
			2004	2005 (June)	2004	2005 (June)	2004	2005 (June)
AGS	75,187	13,404	64,234	88,113	52	62.8	810	713
BCN	229,025	37,351	50,000	50,843	132	71.8	2,640	1,412
BCS	37,713	6,984	12,674	12,724	17	6.1	1,341	479
CAMP	84,643	26,158	35,000	35,648	43	31.7	1,229	889
COAH	126,855	11,510	60,000	15,146	141	12.7	2,350	839
COL	61,413	32,120	9,769	68,979	8	31.1	819	451
CHIS	690,396	24,073	67,479	59,996	82	63.7	1,215	1,062
CHIH	273,103	1,556		30,000		15.0		500
DF	833,349	34,622						
DGO	144,477	96		6,665		4.0		600
GTO	604,563	35,835	119,888	129,368	166	54.8	1,385	424
GRO	518,800	18,904	12,000	13,674	35	19.0	2,917	1,389
HGO	347,308	22,680	43,838	46,242	77	44.1	1,756	954
JAL	703,727	28,740	94,825	100,210	197	152.3	2,078	1,520
MEX	1,486,359	9,787	78,425	118,486	143	141.7	1,823	1,196
MICH	645,768	2,154	10,000	10,000	22	0.8	2,200	80
MOR	224,480	12,508	24,997	28,117	56	39.8	2,240	1,416
NAY	126,309	13,740	34,974	54,974	27	52.5	772	955
NL	239,485	16,048	26,000	27,832	30	24.9	1,154	895
OAX	596,086	7,299	52,530	55,747	102	74.6	1,942	1,338
PUE	781,537	23,389	112,912	120,713	133	52.6	1,178	436
ORO	145,541	3,975	9,749	10,863	4	4.6	410	423
QROO	101,109	4,634	7,976	8,750	15	7.7	1,881	880
SLP	290,132	60,015	52,211	79,363	159	114.5	3,045	1,443
SIN	233,113	96,964	95,000	106,165	255	120.8	2,684	1,138
SON	182,004	24,585	29,038	70,850	48	55.4	1,653	782
TAB	278,140	142,971	187,726	327,964	528	315.3	2,813	961
TAMPS	281,355	119,901	150,000	155,000	257	146.7	1,713	946
TLAX	129,518	5,420	16,855	17,852	22	21.2	1,305	1,188
VER	1,044,612	11,416	73,836	81,829	138	148.7	1,869	1,817
YUC	177,869	7,645	10,000	10,734	9	9.7	900	904
ZAC	204,278	33,898	21,636	30,907	65	34.4	3,004	1,113
<b>Total</b>	<b>11,898,254</b>	<b>890,382</b>	<b>1,563,572</b>	<b>1,973,754</b>	<b>2,963</b>	<b>1,935.0</b>	<b>1,895</b>	<b>980</b>

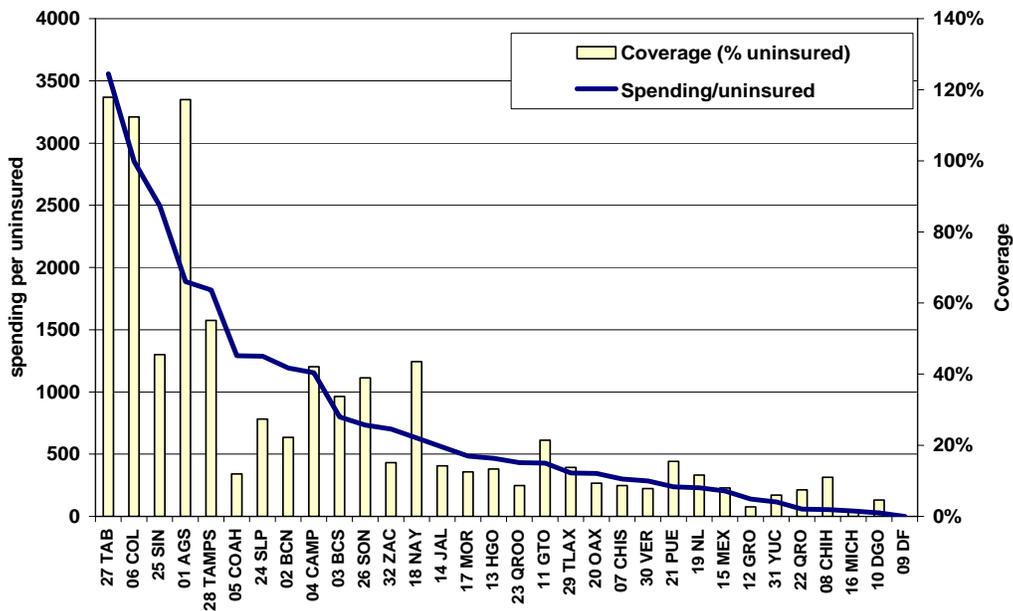
Source: CNPSS, (2005).

Figure 5. *Seguro Popular*, federal and state public spending per uninsured



Note: *Seguro Popular*, 2005 spending per beneficiary refers to the first semester only.  
 Source: CNPSS, (2005); SSA (2005).

Figure 6. *Seguro Popular* coverage and federal *Seguro Popular* spending per uninsured (2002-June 2005)



Source: CNPSS, (2005).

### ***3. Use of Public Health Services, Private Health Expenditures, and Incidence of Catastrophic Health Expenditures: Preliminary Evidence***

This section presents preliminary evidence on some of the variables which *Seguro Popular* is expected to affect: use of public health services, private health expenditures, and incidence of catastrophic health expenditures. Given that coverage of *Seguro Popular* was still relatively low in 2004, the limited sample of beneficiaries in the ENIGH survey, and that health use and spending (especially catastrophic spending) are infrequent events, these results will be presented in coarser household partitions by income (quintiles 1 and 2, and 3-5 grouped), and should in any case be interpreted with care, especially when observed differences are small. It should also be clear that this is not an *impact* evaluation, since we lack appropriate control groups.<sup>18</sup> It is therefore possible that the observed differences when comparing *Seguro Popular* beneficiaries and non-beneficiaries reflect in part underlying differences in the characteristics of these groups rather than an effect of the program. One important underlying difference is *Oportunidades* affiliation, which is considered here for non-*Seguro Popular* beneficiaries only, because the sample of *Seguro Popular* beneficiaries reporting health service utilization/expenditures in ENIGH 2004 is too small to analyze differences between beneficiaries and non-beneficiaries of *Oportunidades* within this group. Finally, in contrast to previous versions of ENIGH, which reported use of SSA services even when these did not involve monetary outlays (in its non-monetary module), for some reason the ENIGH 2004 only reports use of SSA health services involving monetary outlays, thus probably underrepresenting use of health services by *Seguro Popular* beneficiaries. A more robust analysis will be possible in the near future with the *Encuesta Nacional de Salud y Nutrición*, 2005 (ENSANUT), which was unfortunately not available at the time of this study.

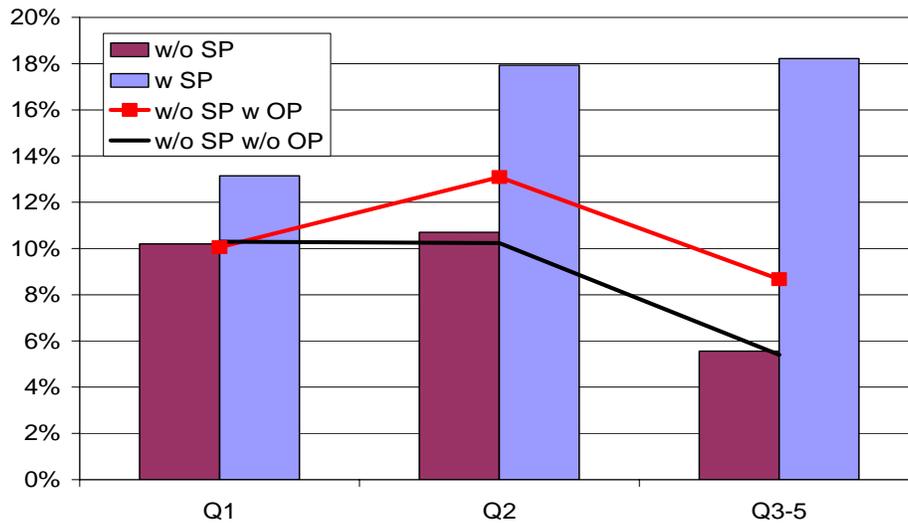
Having noted these limitations, we should expect *Seguro Popular* beneficiaries in each income group to present higher levels of utilization of public health services, lower levels of out-of pocket health expenditures, and a lower incidence of catastrophic health expenditures, compared to the rest of the uninsured. The evidence presented in the following figures is consistent with these expectations. Utilization rates of SSA services are higher for *Seguro Popular* affiliates, though the increase in user rates is significantly higher for higher income groups than for the first quintile (Figure 7). This could reflect an impact of the program, but also perhaps some *adverse selection* of less healthy population. Affiliating households with previously unattended health needs

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<sup>18</sup> An impact evaluation of *Seguro Popular*, by the Harvard Institute for Global Health, is currently under way, and will be completed by the end of 2006.

would of course be perfectly consistent with the objectives of the program, indicating effective targeting in this dimension, though the term *adverse* might still be relevant from the point of view of the program's finances. Note also that part of the difference in utilization rates may be accounted for by *Oportunidades*, which partially conditions its monetary transfers on such participation.

**Figure 7. Rate of use of SSA services by uninsured households**

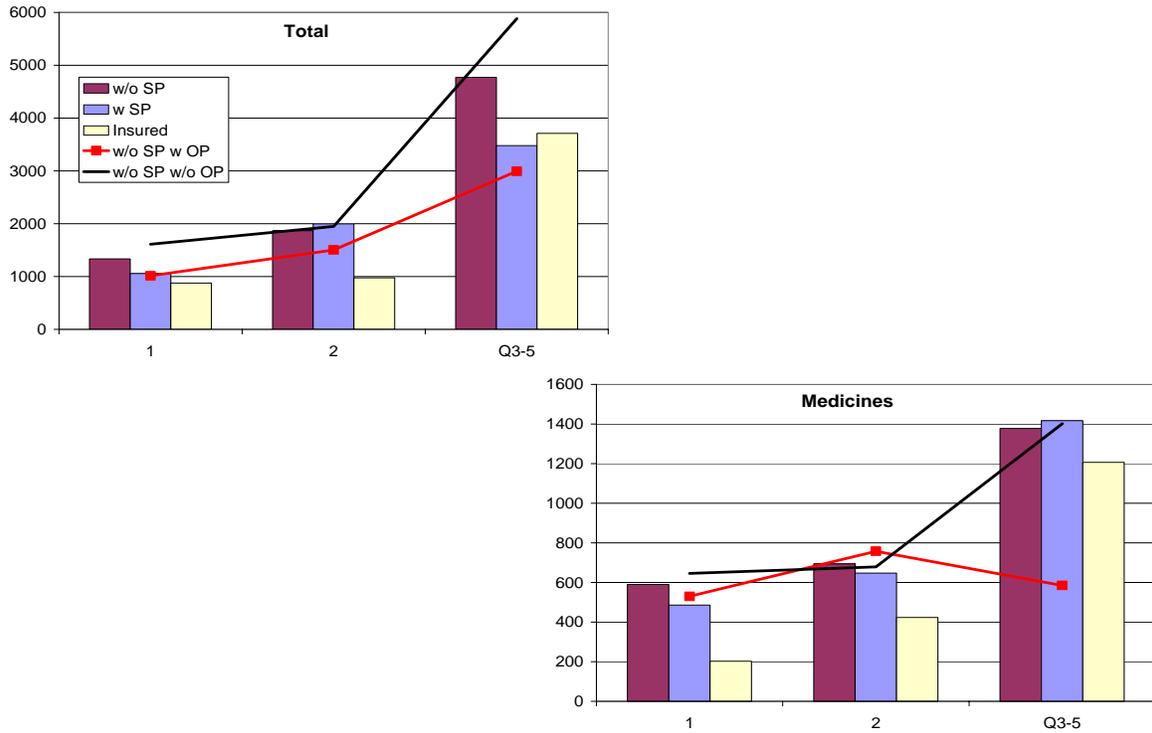


Households ordered by current income per capita net of transfers.

Source: Author's calculations using ENIGH, 2004 (including *Módulo de Programas Sociales*).

Household health expenditures are lower on average for *Seguro Popular* beneficiaries than for the rest of the uninsured, in absolute as well as relative terms (except in the second quintile) (Figures 8 and 9), though the differences are probably too small to be statistically significant in the poorer quintiles. Again there is some evidence that *Oportunidades* is also contributing to reduce household health expenditures.

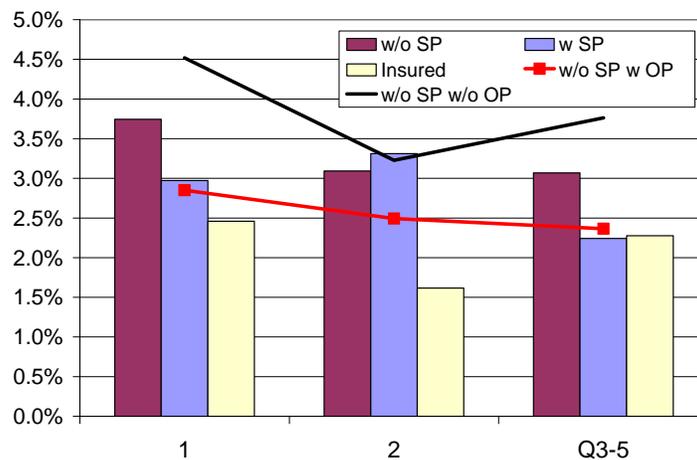
**Figure 8. Household health expenditures (MxP)**



Households ordered by current income per capita net of transfers.

Source: author's calculations using ENIGH, 2004 (including *Módulo de Programas Sociales*).

**Figure 9. Household health expenditures as percentage of income**

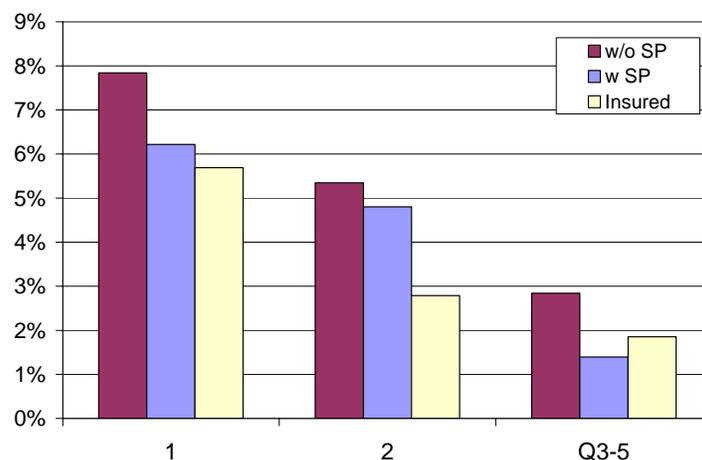


Households ordered by current income per capita net of transfers.

Source: author's calculations using ENIGH, 2004 (including *Módulo de Programas Sociales*).

Finally, Figure 10 shows that the incidence of *catastrophic health* expenditures is lower across deciles for *Seguro Popular* beneficiaries than for the rest of the uninsured.<sup>19</sup>

**Figure 10. Incidence of catastrophic health expenditures (more than 30% of household income net of food poverty line)**



Households ordered by current income per capita net of transfers.

Source: author's calculations using ENIGH, 2004 (including *Módulo de Programas Sociales*).

<sup>19</sup> Catastrophic health expenditures are defined here as expenditures representing more than 30 percent of disposable household income, defined in turn as current income net of the food poverty line, which represents the cost of a minimum food basket. This definition is not comparable to the more complex concept used by the SSA.

## Conclusions

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In principle, an optimal division of responsibilities between federal and local levels of government would allocate to the former the definition of overall (national) distributive criteria and rules of operation, as well as the powers to enforce them, and to the latter the application of these resources and rules to local circumstances. In practice, if the distributive criteria are unclear or ambiguous, and the federal regulative capacity is limited, there may be a conflict between decentralization and equitable distribution—both at the national and local levels—as weakly regulated local administrations undermine the implementation of national distributive criteria.

The preliminary evidence presented here suggests that the decentralization of *Seguro Popular* may be constrained by just this kind of trade-off. At least in the present phase of the program, the selection of beneficiaries does not target the poorest states and households as effectively as its (transitional) objectives would require, nor, especially, as its administrative records suggest. The distribution of *Seguro Popular* affiliation is more progressive than both, the utilization of SSA health services and the distribution of uninsured households, but falls short of the targeting achieved by *Oportunidades* as well as (the utilization of) IMSS-*Oportunidades* health services. The proportion of *Seguro Popular* beneficiaries in extreme poverty (first quintile) according to ENIGH (45 percent), is less than half of the proportion reported by the program (93 percent). In addition to this *inclusion error*, there is some evidence of an *exclusion error*, as a third of the contributive burden is absorbed by the poorest quintile.

The case of *Seguro Popular* may be usefully compared and contrasted in this context with the two largest (in budgetary terms) anti-poverty programs/funds currently operating in Mexico. On the one hand, FAIS (Fondo de Aportaciones para la Infraestructura Social) presents a similar trade-off, where a reasonable degree of municipal allocative freedom is achieved but distributive equity (and allocative and technical efficiency) within municipalities cannot be effectively monitored, and thus enforced. On the other, the noted trade-off is one reason why the principal federal anti-poverty program implemented in Mexico in the last two administrations—originating as *Progresá*, today *Oportunidades*—was designed to be centrally administered, and has staunchly resisted political pressures to decentralize.

Noting this trade-off is not meant as an argument against the decentralization of anti-poverty or social protection programs, but *for* the definition of clear distributive criteria and institutionalization of unambiguous regulative responsibilities and capacities for an effective decentralization of social services to the poor. It should also be noted, on the other hand, that the decentralization of social and productive services and basic infrastructure in

Mexico has led to increased equity in the devolution of funds to the states simply by making these distributions transparent, and more directly through the use of explicit compensatory criteria, as is exemplified by FAIS. As has been shown above, in its present phase, *Seguro Popular* has yet to achieve the objective of inter-state equity postulated in the health reform law which gave birth to it. But the postulation of this objective and the transparency of *Seguro Popular* transfers to the states (published on a biannual basis as part of the monitoring indicators of the program) are the first necessary steps to achieve such equity.

Accounting for these targeting errors will require further investigation. They could reflect design problems in the socioeconomic questionnaire and statistical method used to classify households into income groups, which should be carefully revised. Given that this instrument is adapted from the *Oportunidades* selection instrument, the difference between the two programs in targeting performance more probably reflects differences in the *application* of the instrument. As was noted in section I, the affiliation rules are ambiguous and allow for much discretionality in the use of this instrument, in the case of group affiliations, beneficiaries of other social programs, or demands of government agencies. In particular, the following issues are unclear at present, due to ambiguities in the rules as well as lack of information, and should be the subject of future operational evaluations of *Seguro Popular*:

- a) What is the proportion of beneficiaries affiliated without identification of socio-economic status through the established proxy-means test?
- b) At what level do demands for untested affiliations originate (beneficiary clients, state government, or federal government), how are they processed, and who (state or federal health authorities) has final responsibility for accepting or rejecting them?
- c) What are the restrictions limiting the participation of the extreme poor, despite the offer of fully subsidized basic health insurance to this group:
  - 1) information about the program and access to affiliation modules (diffusion and location of modules is a local responsibility);
  - 2) poor households may be misidentified as non-poor and thus charged a contribution which they are not willing to pay (See Table 3 above),
  - 3) there may be supply restrictions, as health units may not be available in small poor localities and/or *Seguro Popular* may not yet cover health units in such localities.
- d) Given present *Seguro Popular* institutional and financing arrangements, incentives faced by state governments may be to maximize non-contributive affiliation, since state governments currently bear a relatively small burden of *Seguro Popular* financing. By the rules of the program, the mandatory state contribution per beneficiary family (*Aportación Solidaria Estatal*) represents only 16.7 percent of the total public cost per beneficiary family (Table 6). The incentive to expand (non-contributive) coverage is especially strong for states which already

allocate significant resources to health, like Tabasco, which can finance this contribution with existing resources. In contrast, this design may hamper the coverage-expansion efforts of those states which spend little on health, and would thus require allocating fresh resources to finance the required contribution.

**Table 6. Federal and State government shares in the financing of *Seguro Popular* per beneficiary family**

Level of Government	Concept	Fraction of Minimum Wage*	%
Federal	Cuota Social	15.0%	33.3%
	Aportación Solidaria Federal	22.5%	50.0%
State	Aportación Solidaria Estatal	7.5%	16.7%
Total		45.0%	100.0%

\*Minimum wage in the Federal District, January 1, 2004.

It seems possible that the federal and state governments might not be too concerned about the limited targeting efficiency of the program (relative to what the program's administrative records indicate) given the expectation of achieving universal coverage of the uninsured, which implies that its incidence will in any case eventually become *less* progressive than it is at present (see above, Figure 3). Such complacency would be mistaken, however, for the following reasons:

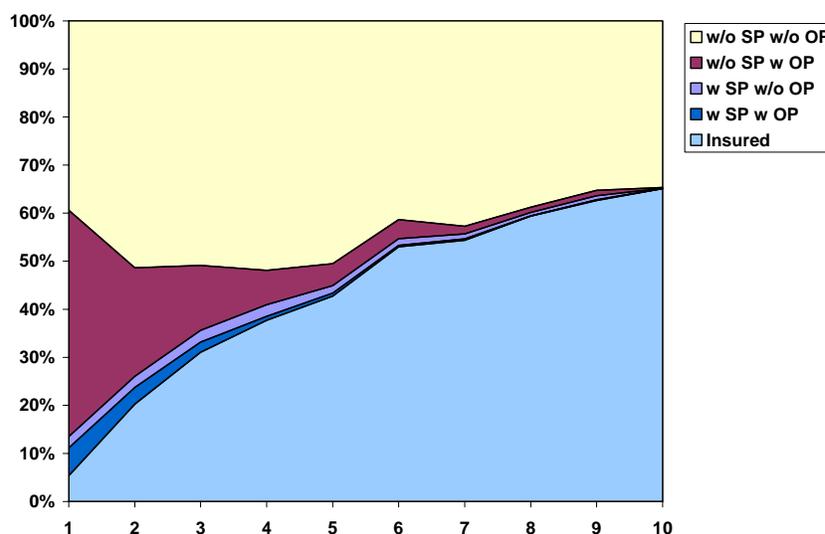
- a) The size of the gap between administrative records and survey evidence is indicative of administrative and regulative limitations of the program beyond the identification procedures, undermining its credibility more generally.
- b) Even if the program is maintained and its growth trajectory remains on target in the 2006-2012 administration, universal coverage would only be achieved by the end of the decade.<sup>20</sup> If, more probably, universal coverage is more distant, efficient targeting will be critical to ensure at least universal coverage among the poor and most vulnerable.
- c) The fact that the program is legally contributive for the non-poor, at present representing 65 percent of its beneficiaries (by the above estimates), but 90 percent of these are actually registered as non-contributing beneficiaries, obviously undermines the credibility of the contributive element and weakens the finances of the program. A case can certainly be made in favor of a minimum health protection scheme

<sup>20</sup> The program does not aim to achieve universal coverage, strictly speaking, as a fraction of the uninsured at the top of the income distribution will always prefer private insurance.

which is universal and non-contributive, but if this is the desired model the program should be designed so *de jure*.

A simple solution to improving the targeting efficiency of *Seguro Popular* without having to set up a new and costly targeting mechanism, in the present transitional phase, would be the automatic affiliation of all *Oportunidades* beneficiaries and IMSS-*Oportunidades* users. Given that about 1 million of the present *Seguro Popular* affiliates are already *Oportunidades* beneficiaries, the register of beneficiaries of this program would offer 4 million more candidates.<sup>21</sup> As can be seen in Figure 11, this would at least offer poorer deciles similar insurance coverage as upper deciles, a reasonable *transitional* objective of *Seguro Popular*.

**Figure 11. Coverage of public health insurance: *Seguro Popular*, *Oportunidades* and Social Security**



Households ordered by current income per capita net of transfers.  
 Source: author's calculations using ENIGH, 2004 (including *Módulo de Programas Sociales*).

Though this proposal would entail in effect a centralization of the affiliation process, where the federal government would simply identify the relevant list and the affiliation order of candidates from the *Oportunidades* beneficiary data base and pass this on to the states for mandatory implementation, state

<sup>21</sup> Note, however, that again in this case income deciles from this data base do not correspond to income deciles as obtained from ENIGH due to conceptual/methodological differences as well as targeting errors, as is clear from Figure 2: all *Oportunidades* beneficiaries are supposed to be in the first quintile of its socioeconomic classification, but only 65% of beneficiary households (55% of beneficiary population) are in the first income quintile as reported in ENIGH, 2004.

governments could still play a critical role using their comparative advantage in local information to extend this list (and the required health services) to small poor communities where *Oportunidades* does not reach, and according to the specific socioeconomic, demographic and epidemiological conditions of each state.

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