



¡La bolsa o la vida! La vulnerabilidad financiera de los adultos mayores frente a los gastos en salud

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Viernes Económico PUCP
5 de Abril 2019

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Lo bueno, lo malo y lo feo

El consenso sobre las metas de salud han evolucionado en años recientes

- **SDG 3:** “ensure *healthy lives* and promote well-being for all ages”



Target 3.8: Achieve UHC

Indicator 3.8.1:
Coverage of essential
health services

Indicator 3.8.2:
Financial protection from
OOP

All people can use the *promotive, preventive, curative, rehabilitative, and palliative health services they need*, of sufficient quality to be *effective*, while ensuring use of these services does not expose the user to *financial hardship*

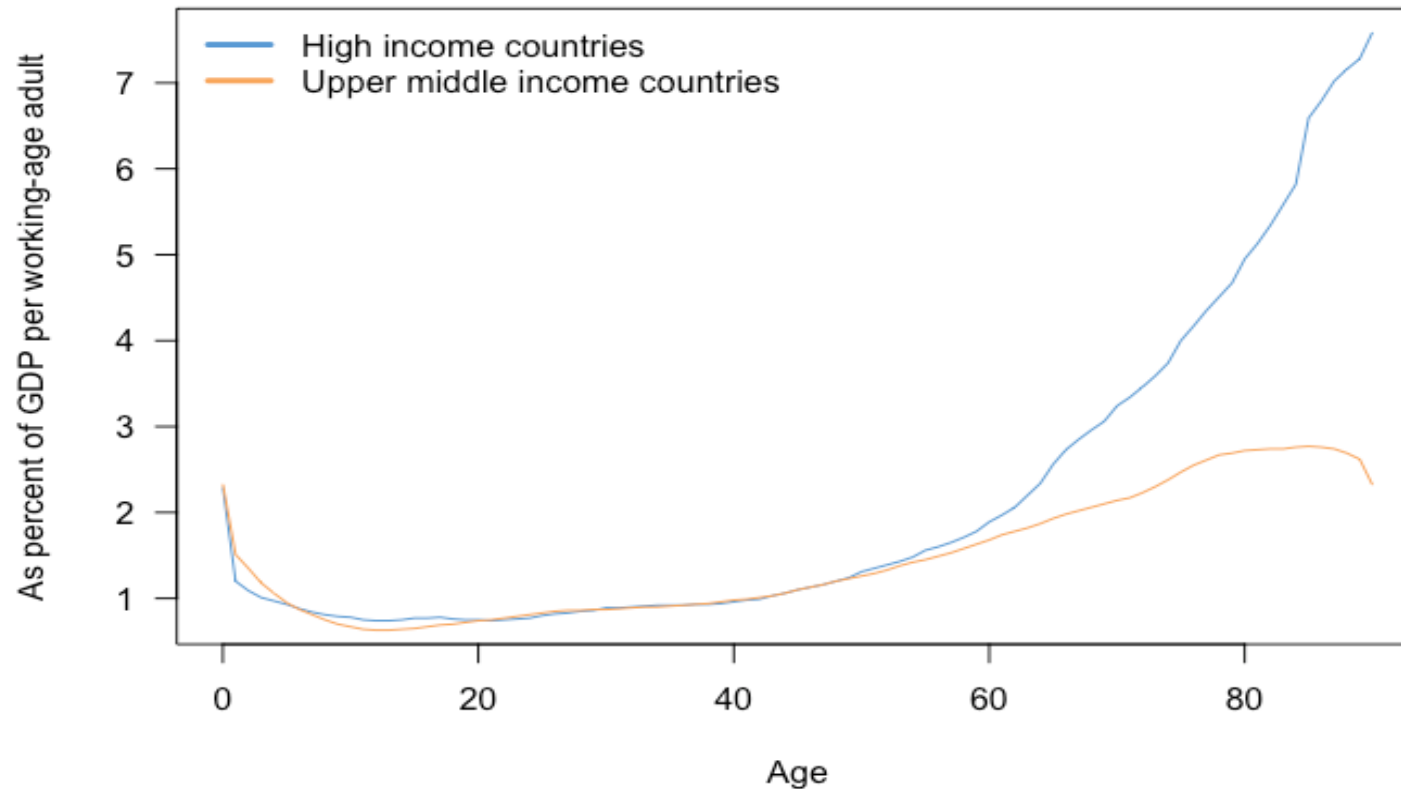
AL es la región con el riesgo financiero de salud mas elevado. 15% de la población (88m) esta expuesta a gastos catastróficos en salud.

	2000		2005		2010	
	Proportion of population (%)	Number of people (million)	Proportion of population (%)	Number of people (million)	Proportion of population (%)	Number of people (million)
10% threshold (total consumption)						
Global	9.7%	588.5	11.4%	741.3	11.7%	808.4
Africa	8.7%	70.7	10.3%	94.1	11.4%	118.7
Asia	10.4%	381.6	12.2%	479.2	12.8%	531.1
Europe	6.5%	47.4	7.0%	51.2	7.2%	53.2
Latin America and the Caribbean	13.4%	70.5	17.5%	98.3	14.8%	88.3
North America	5.5%	17.2	5.3%	17.4	4.6%	15.6
Oceania	3.5%	1.1	3.4%	1.1	3.9%	1.4
25% threshold (total consumption)						
Global	1.9%	112.8	2.4%	154.9	2.6%	179.3
Africa	1.5%	12.3	1.9%	17.7	2.5%	25.6
Asia	2.1%	77.1	2.8%	108.7	3.1%	128.7
Europe	0.9%	6.5	1.0%	7.3	1.0%	7.2
Latin America and the Caribbean	2.6%	13.6	3.2%	18.0	2.5%	14.9
North America	1.0%	3.1	0.9%	3.0	0.8%	2.6
Oceania	0.5%	0.1	0.4%	0.1	0.5%	0.2

Table 2: Global estimates of catastrophic spending

Envejecimiento poblacional y la curva J: Gasto per cápita en salud por edad en economías ricas y emergentes

Figure 13. Per-capita spending on health care by age in high income and upper-middle income countries.

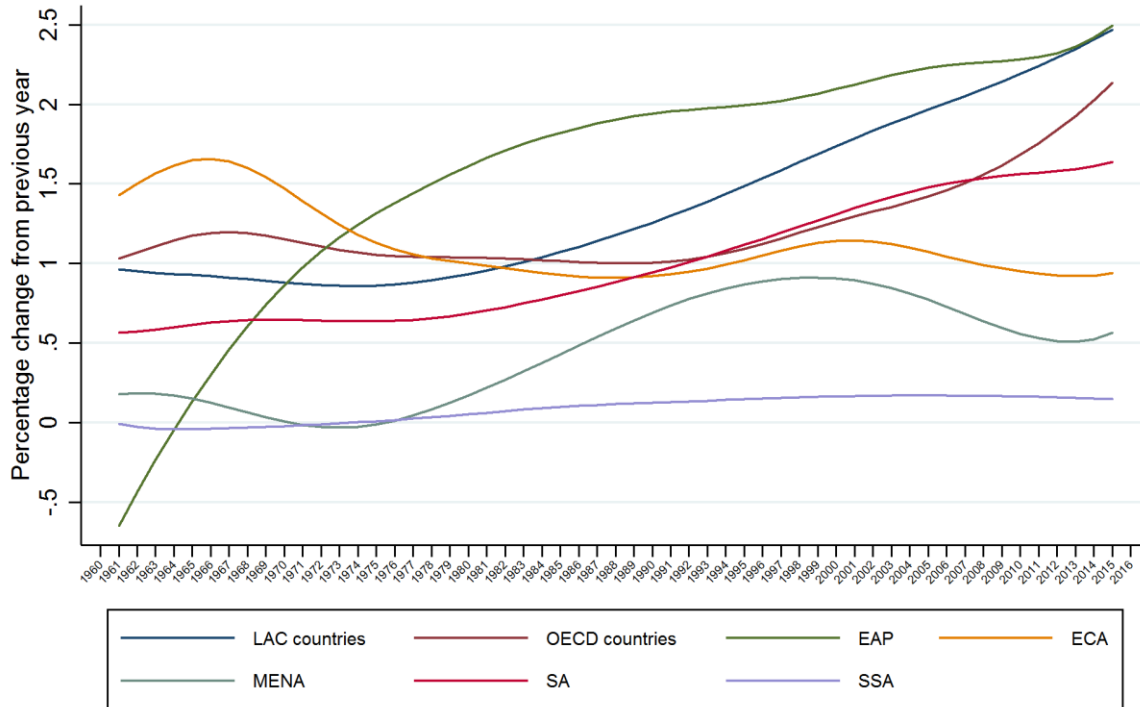


Source: Author's calculations based on data on health care public consumption by age from the National Transfer Accounts (Lee and Mason, 2011; NTA, 2017).

AL y Asia del Este envejecen a la tasa mas rápida a nivel global

Rate of aging in LAC is among the highest across regions

Percentage change in fraction of population that is age 65 and older



Source: World Bank, 2016, based on World Development Indicators

- Graph Shows the rate of change of the percentage of population that is over 60 years
 - LAC and EAP are aging much faster than other regions

Percentage of population that is 60+ and 80+, 2006 and 2015

Country	Population 60+ (%)			Population 80+ (%)		
	2006	2015	Percentage change	2006	2015	Percentage change
Argentina	14.2	14.5	2.5	2.3	2.5	9.4
Bolivia	7.4	10.3	38.9	0.7	1.2	65.1
Brazil	10.1	14.3	41.2	1.3	2.0	50.0
Chile	12.9	17.4	35.0	1.9	3.0	57.4
Colombia	9.6	11.4	18.5	1.4	1.8	29.3
Costa Rica	9.1	13.1	44.2	1.4	2.2	56.3
Dominican Rep.	9.7	12.0	23.7	1.5	2.2	42.5
Ecuador	10.3	9.8	-4.7	1.6	1.6	3.3
El Salvador	9.5	11.9	25.7	1.6	2.2	33.9
Guatemala	6.7	7.7	14.9	1.0	1.1	7.2
Honduras	7.3	8.9	22.4	1.2	1.4	15.4
Mexico	9.1	10.5	15.5	1.4	1.5	9.4
Nicaragua	7.4	8.1	9.8	1.2	1.5	26.7
Panama	10.4	12.6	21.2	1.7	2.1	27.1
Paraguay	8.5	11.2	32.2	1.3	1.6	18.9
Peru	10.7	13.9	30.9	1.6	2.4	53.6
Uruguay	19.5	18.7	-4.1	3.5	3.7	6.1
LAC average (unweighted)	10.1	12.1	21.6	1.6	2.0	30.1

Source: Authors' calculations.

- The percentage of people over 60 years in LAC increased by 22% between 2006 and 2015 (10% to 12%)
- The percentage of people over 80 years increased by 30% in the same period

La curva J en AL: el uso y el gasto son mucho mas elevados entre adultos mayores

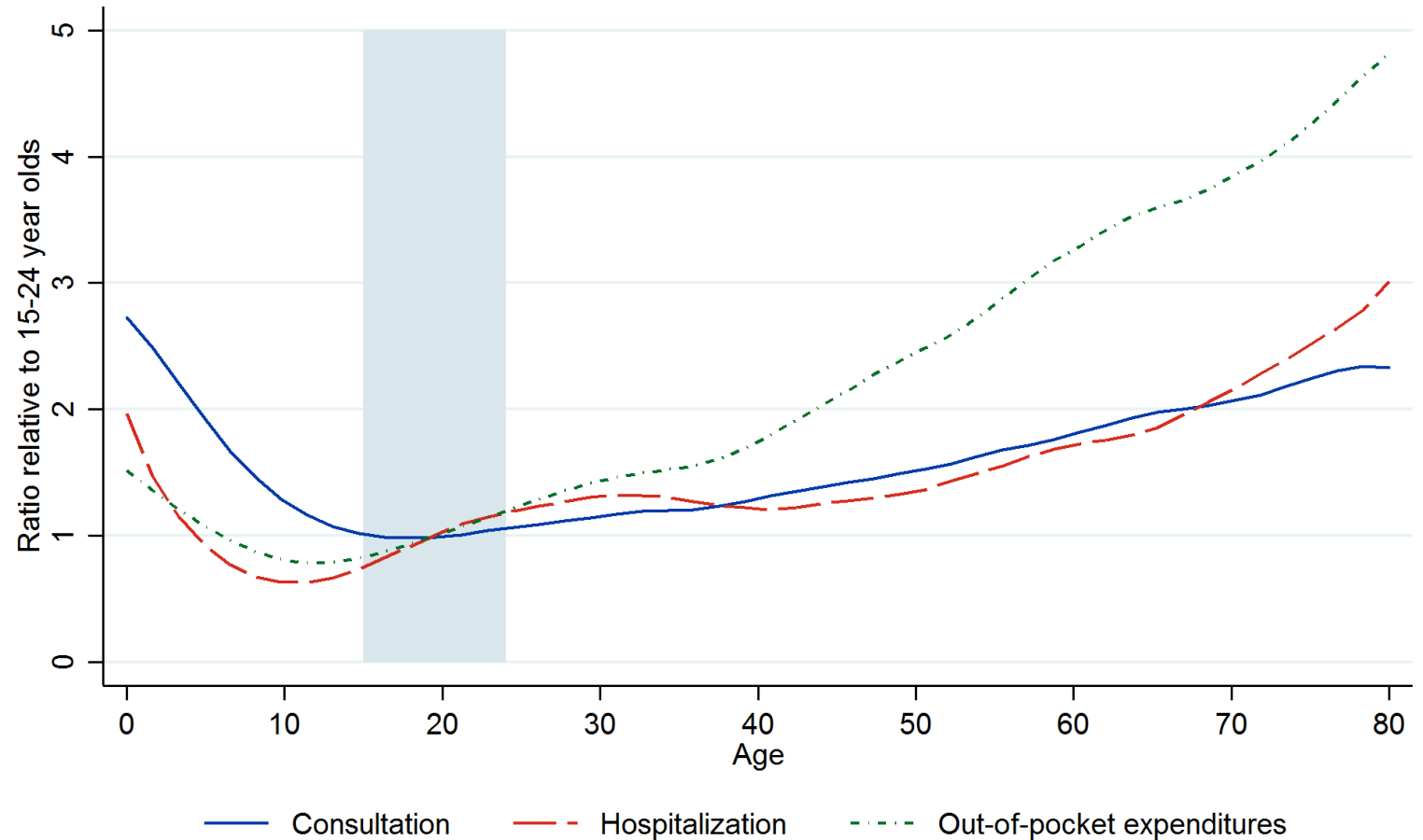
Relative to the reference group of 15-24 year old, the elderly use out- and in-patient health services 2-3 times more often.

The impact on out-of-pocket expenditures is much higher. The elderly population spend more than 3-4 times the amount out-of-pocket than then reference population

The levels vary across countries, but the “J-curve” is pervasive and observable in all countries

Health care utilization patterns by age in Latin America

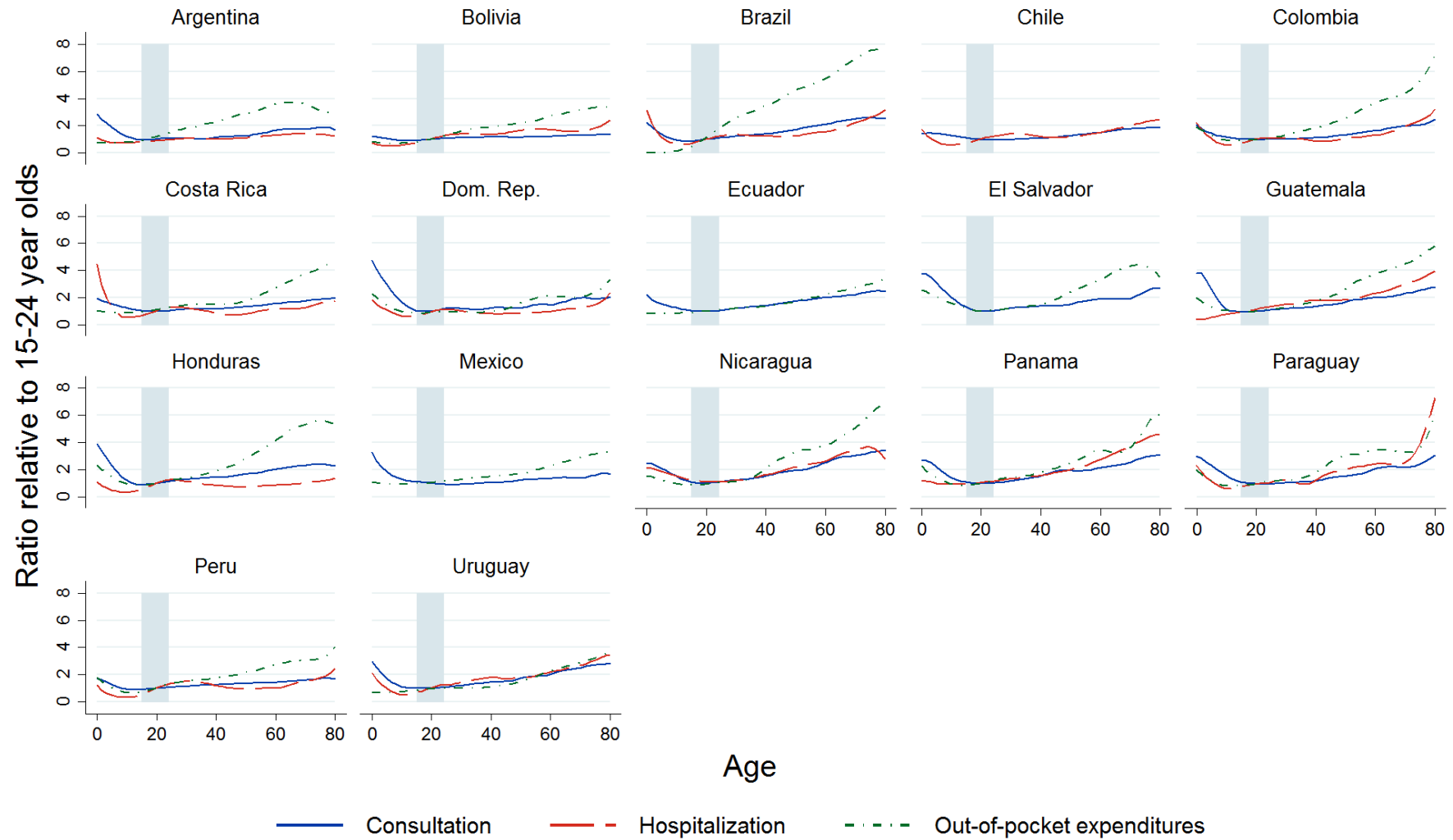
Year 2014



Source: Authors' calculations. Notes: Shaded area shows the reference population. The year of survey varies from 2006 to 2015; the modal year is 2014. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey. Ratios are top-coded at 8 for ease of exposition.

Health care utilization patterns by age and country

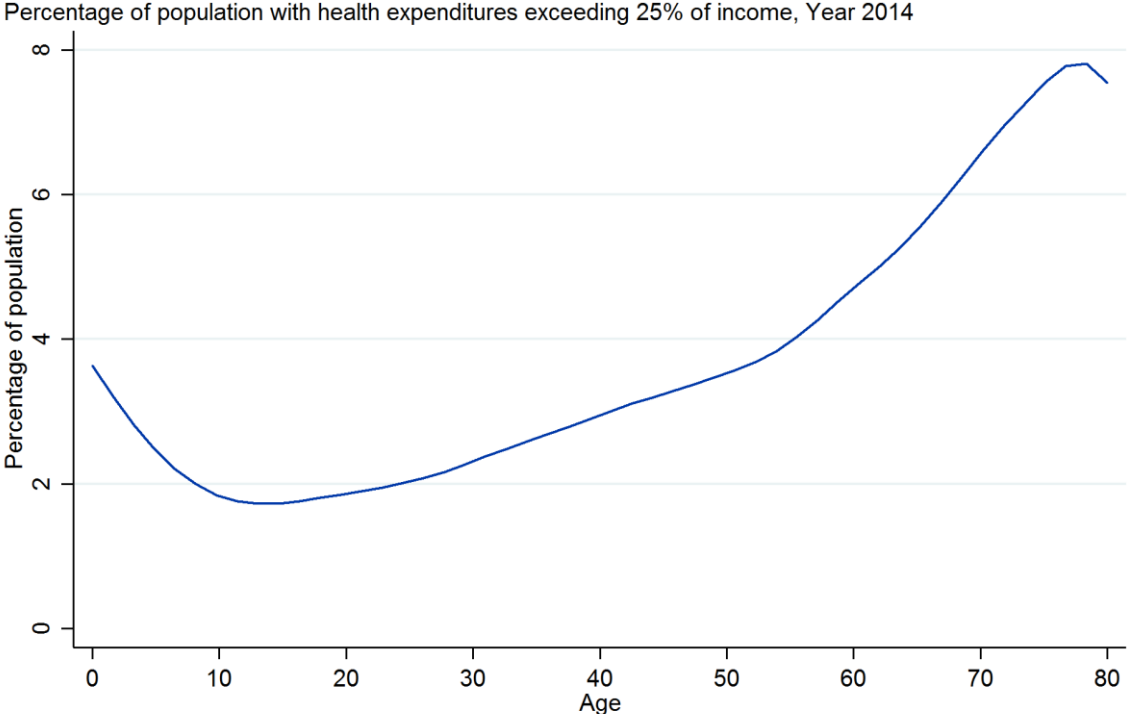
Year 2014



Source: Authors' calculations. Notes: Shaded area shows the reference population. The year of survey varies from 2006 to 2015; the modal year is 2014. OOP expenditure not available for Chile, and income is not available for Honduras. Hospitalization data not available for Ecuador, El Salvador and Mexico. Brazil data uses the POF survey. Ratios are top-coded at 8 for ease of exposition.

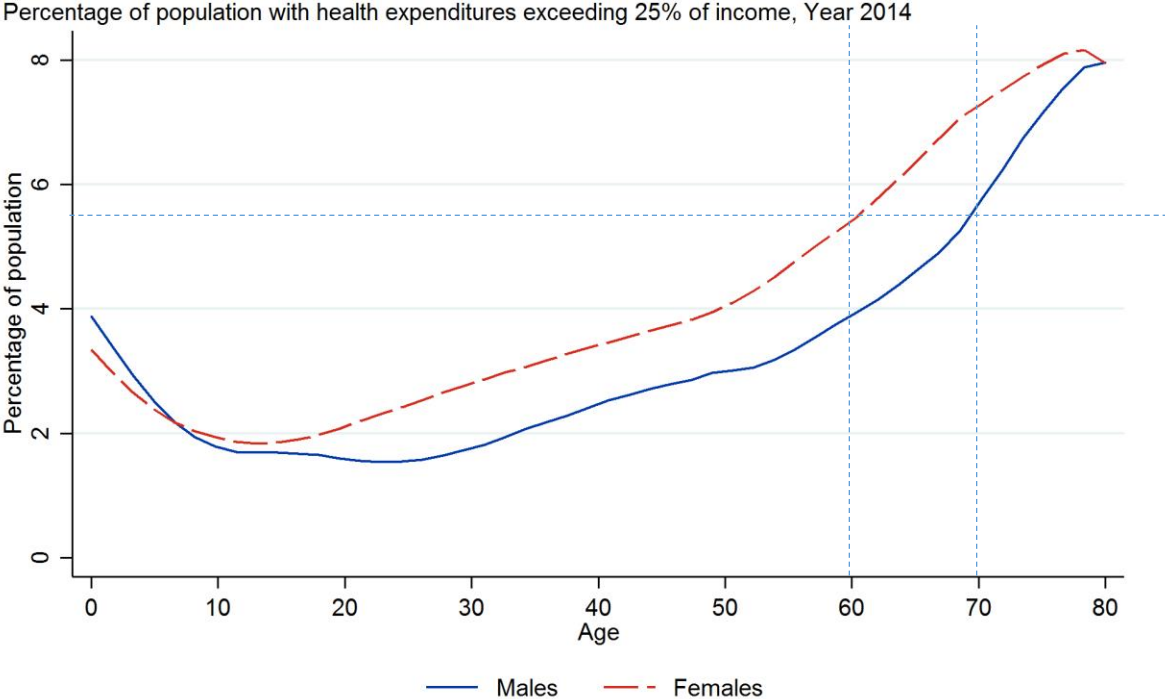
Riesgo de Gastos Catastróficos en salud

Risk of catastrophic health expenditures by age in Latin America



Source: Authors' calculations. Notes: The year of survey varies from 2006 to 2015; the modal year is 2014. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey.

Risk of catastrophic health expenditures by age and gender in Latin America

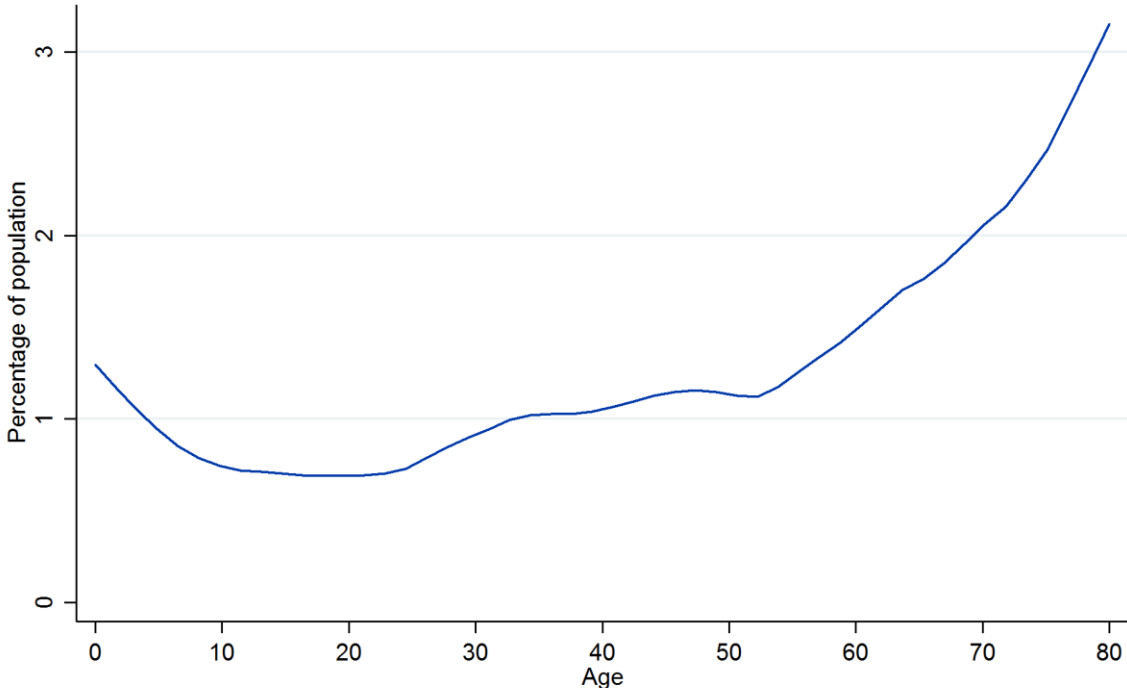


Source: Authors' calculations. Notes: The year of survey varies from 2006 to 2015; the modal year is 2014. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey.

Riesgo de gastos empobrecedores en salud

Risk of impoverishing health expenditures by age in Latin America

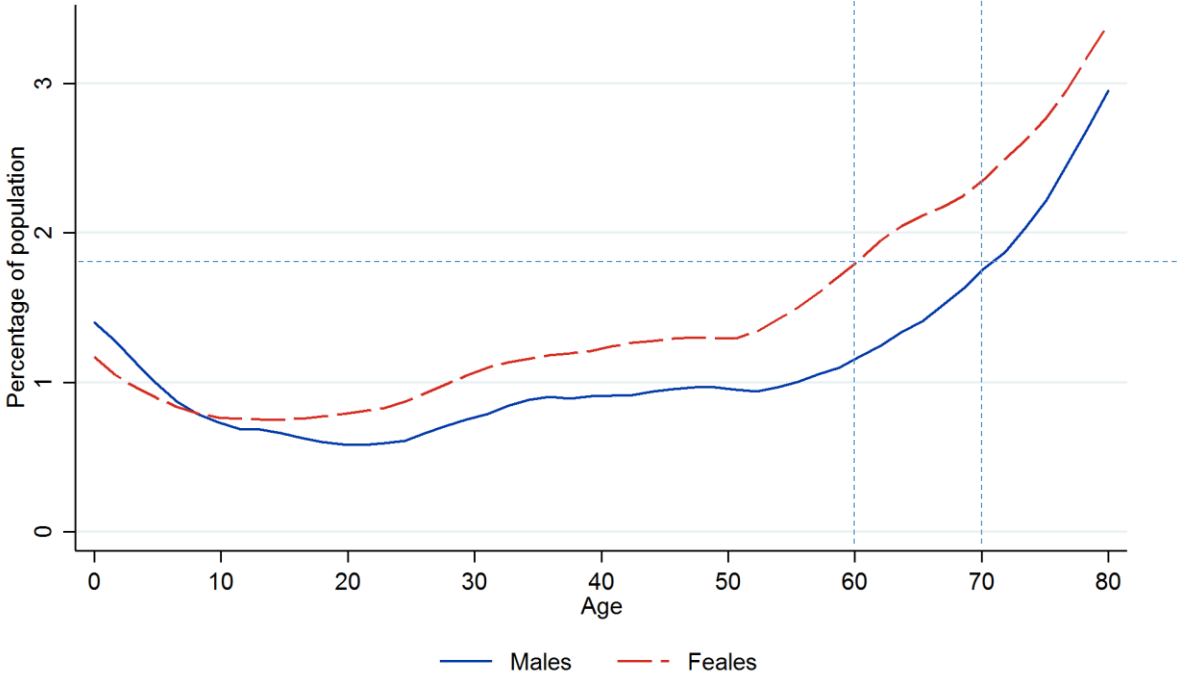
Percentage point increase in poverty, Year 2014



Source: Authors' calculations. Notes: The year of survey varies from 2006 to 2015; the modal year is 2014. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey.

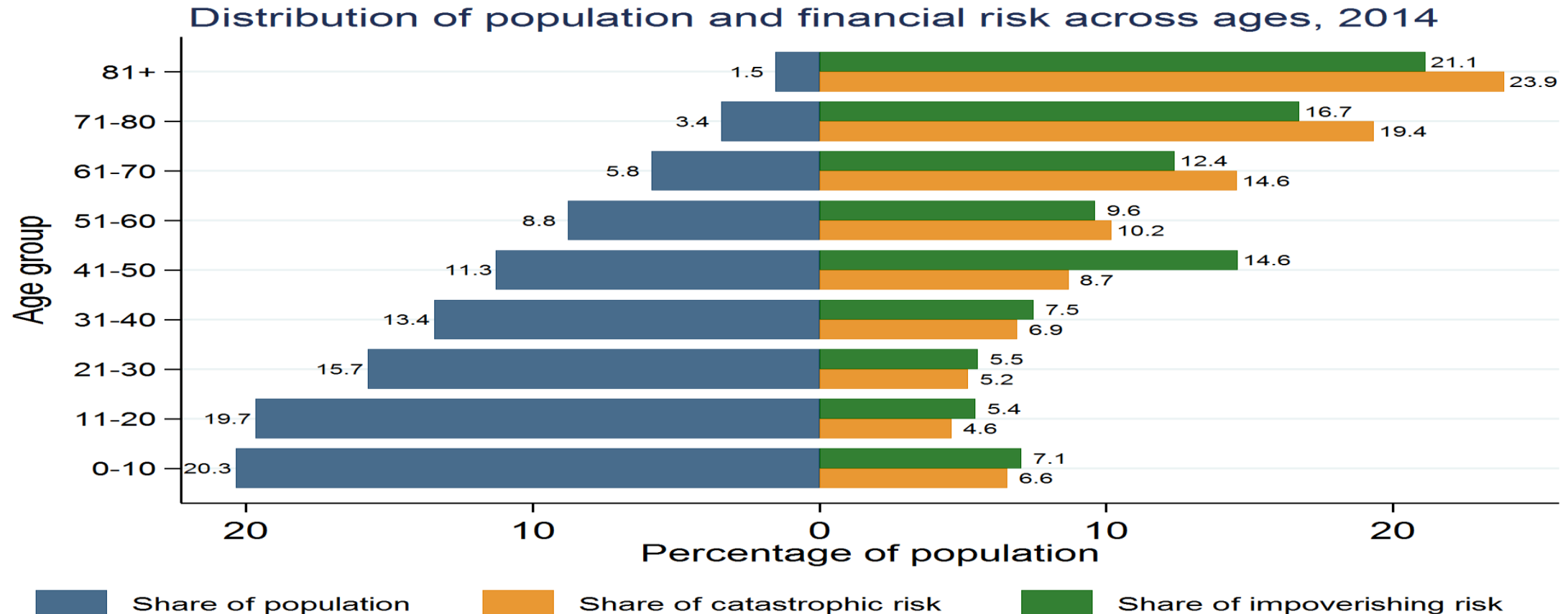
Risk of impoverishing health expenditures by age and gender in Latin America

Percentage point increase in poverty, Year 2014



Source: Authors' calculations. Notes: The year of survey varies from 2006 to 2015; the modal year is 2014. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey.

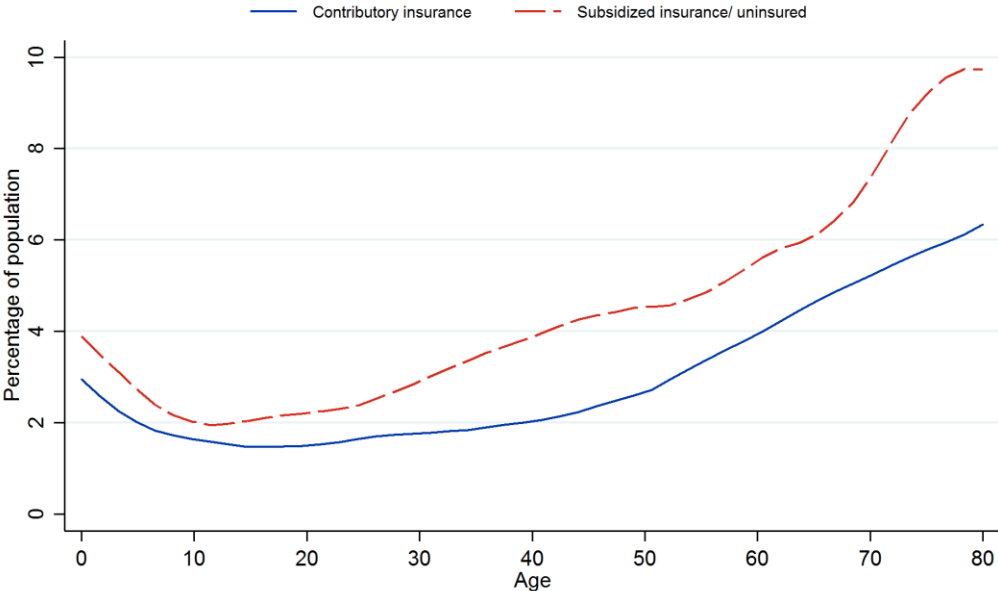
AL: Adultos mayores son 10% de la población y sufren la mitad del riesgo financiero en salud



Riesgo de gasto catastrófico y empobrecedor por tipo de seguro

Risk of catastrophic health expenditures by age in Latin America

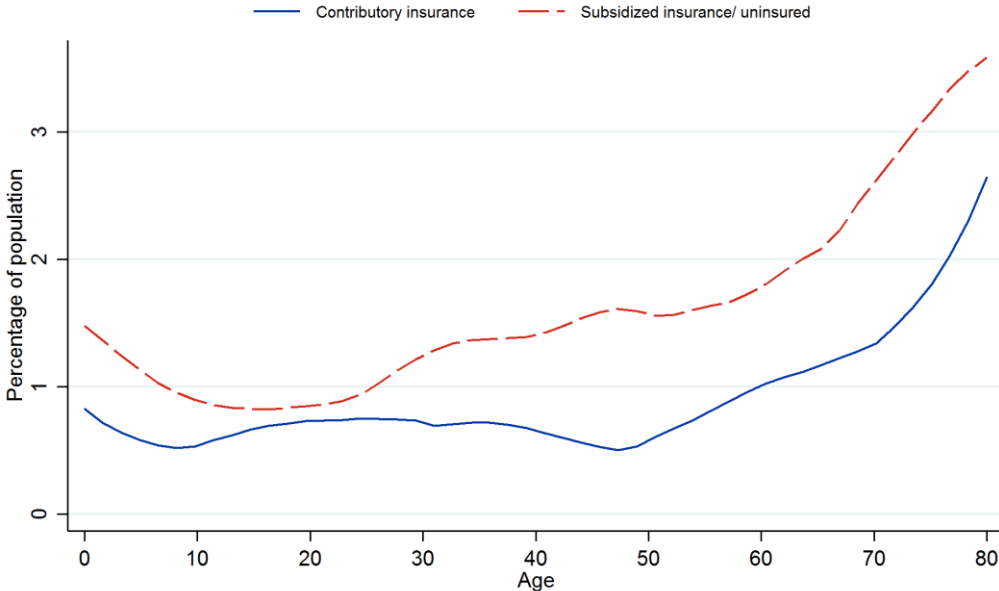
Percentage of population with health expenditures exceeding 25% of income, Year 2014



Source: Authors' calculations. Notes: The year of survey varies from 2006 to 2015; the modal year is 2014. Values are top-coded at 10 for ease of exposition. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey.

Risk of impoverishing health expenditures by age in Latin America

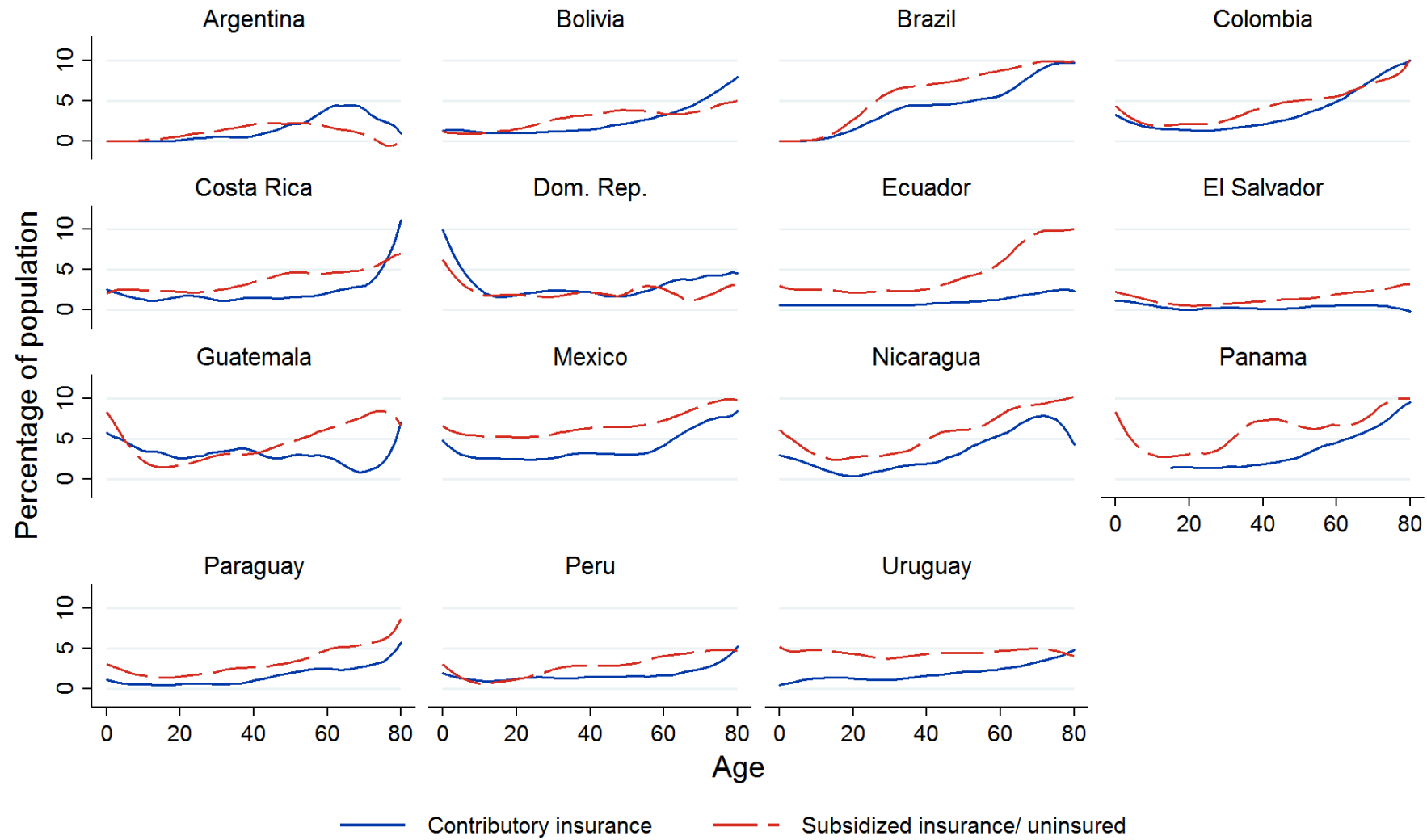
Percentage point increase in poverty, Year 2014



Source: Authors' calculations. Notes: The year of survey varies from 2006 to 2015; the modal year is 2014. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey.

Risk of catastrophic health expenditures by age and country

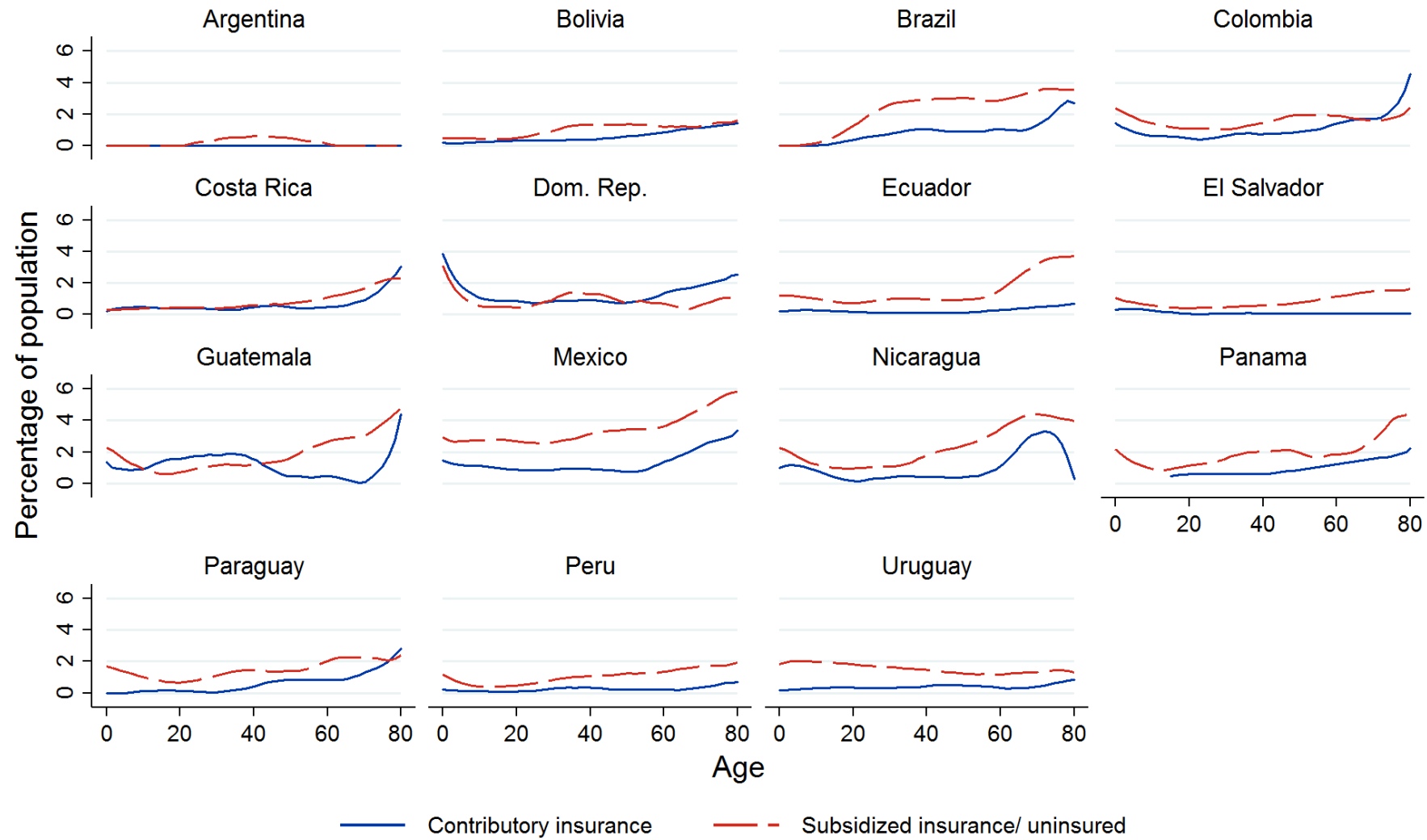
Percentage of population with health expenditures exceeding 25% of income, Year 2014



Source: Authors' calculations. Notes: The year of survey varies from 2006 to 2015; the modal year is 2014. Values are top-coded at 10 for ease of exposition. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey.

Risk of impoverishing health expenditures by age and country

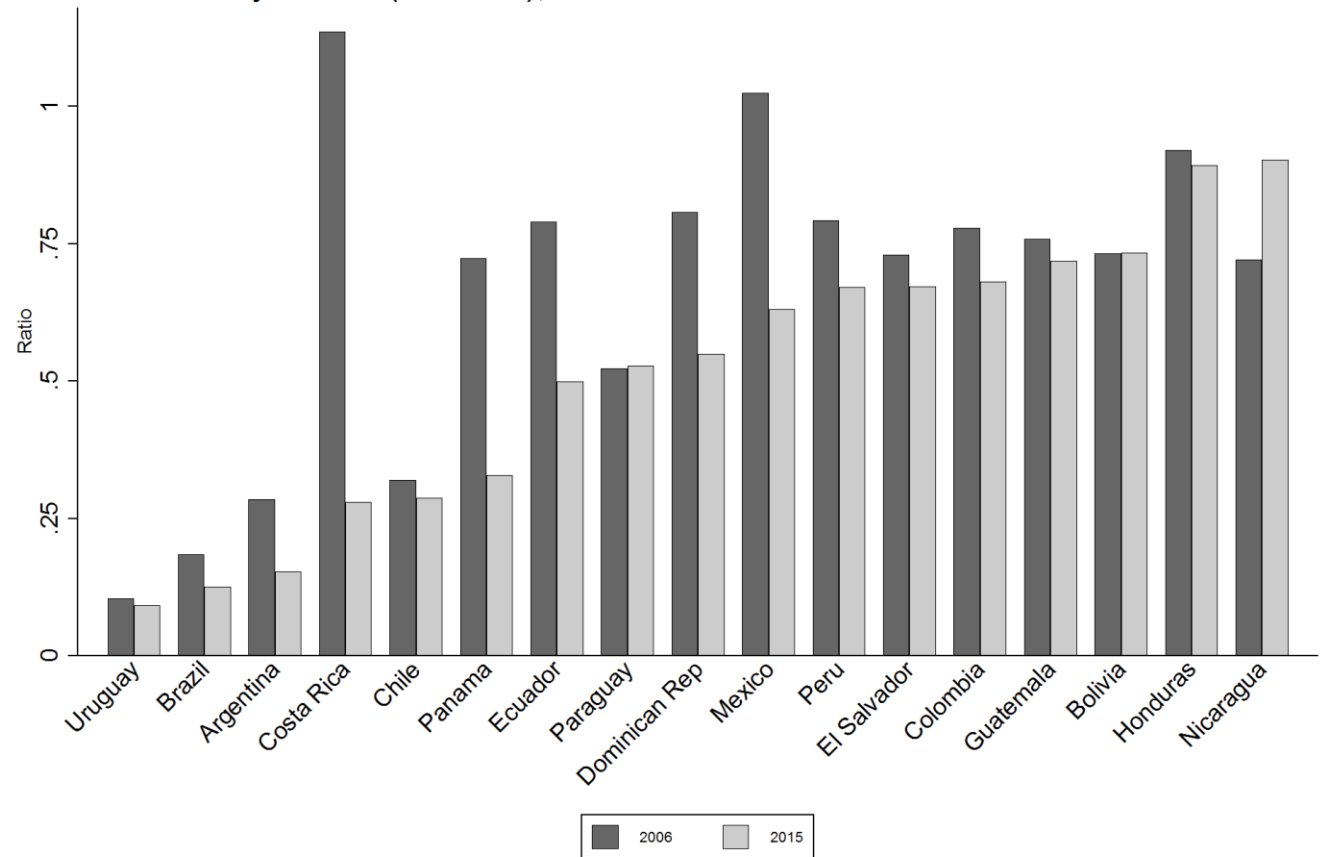
Percentage point increase in poverty, Year 2014



Source: Authors' calculations. Notes: The year of survey varies from 2006 to 2015; the modal year is 2014. Values are top-coded at 6 for ease of exposition. OOP expenditure not available for Chile, and income is not available for Honduras. Brazil data uses the POF survey.

Un consenso en AL es proteger a los adultos mayores contra la pobreza.

Relative Poverty Ratios (60+/ <60), 2006 and 2015



Source: Authors' calculations.

Lo bueno, lo malo y lo Feo: En AL se está expandiendo la cobertura de seguridad social en salud entre los adultos mayores – pero sin financiarla y sin principios de equidad...

Country	Coverage of contributory insurance (%)		
	0-14	15-59	60+
Argentina	61.0	60.8	91.7
Bolivia	12.5	17.8	24.3
Brazil	20.2	26.7	31.7
Colombia	68.3	71.4	74.6
Costa Rica	76.4	70.1	71.8
Dom. Rep.	46.5	56.6	70.4
Ecuador	38.9	33.2	29.4
El Salvador	16.4	24.1	22.6
Guatemala	1.0	1.8	1.1
Mexico	36.3	43.6	51.7
Nicaragua	19.2	18.2	20.9
Panama	0.0	49.0	66.0
Paraguay	25.3	28.3	44.1
Peru	25.6	28.2	37.9
LAC average (unweighted)	32.0	37.8	45.6

Anexos

Data sources

List of Surveys used

S.No.	Country	Survey Name	Survey ID	SEDLAC?	Year	Level	Sample size	Out-patient visits			In-patient visits		Out-of-pocket (OOP) expenditures		Insurance
								Need	Utilization	Recall period (in months)	Hospitalization	Recall period (in months)	Available	Level	
1	Argentina	Encuesta Nacional de Utilizacion y Gasto en Servicios de Salud	ENUG	No	2010	National	3,128	No	Yes	1	Yes	12	Yes	Individual	Yes
2	Bolivia	Encuesta de Hogares	EH	Yes	2015	National	37,364	No	Yes	12/0.5 for kids	Yes*	12	Yes	Household	Yes
3a	Brazil	Pesquisa Nacional de Saude	PNS	No	2013	National	205,546	Yes	Yes	0.5	Yes	12	No	-	Yes
3b	Brazil	Pesquisa de Orçamentos Familiares	POF	No	2008	National	190,159	No	No	-	Yes*	12	Yes	Individual	Yes
4	Chile	Encuesta de Caracterización Socioeconómica Nacional	CASEN	Yes	2015	National	266,968	Yes	Yes	3	Yes	12	No	-	Yes
5	Colombia	Encuesta Multiproposito	EM	No	2014	Cudinamarca	142,570	Yes	Yes	1	Yes	12	Yes	Individual	Yes
6	Costa Rica	Encuesta Nacional de Ingresos y Gastos de los Hogares	ENIGH	No	2013	National	19,301	No	No	-	Yes†	12	Yes	Household	No
7	Dominican Republic	Encuesta Demográfica y de Salud	ENDESA-DHS	No	2013	National	20,769	Yes	Yes	1	Yes	6	Yes	Individual	Yes
8	Ecuador	Encuesta Condiciones de Vida	ECV	No	2013	National	109,694	Yes	Yes	1/0.5 for kids	No	-	Yes	Household	Yes
9	El Salvador	Encuesta de Hogares de Propósitos Múltiples	EHPM	Yes	2014	National	80,164	Yes	Yes	1	Yes	1	Yes	Individual	Yes
10	Guatemala	Encuesta Nacional de Condiciones de Vida	ENCOVI	Yes	2014	National	54,822	Yes	Yes	1	Yes	1	Yes	Individual	Yes
11	Honduras	Encuesta Demográfica y de Salud	ENDESA-DHS	No	2012	National	100,555	Yes	Yes	1	Yes	12	Yes	Individual	Yes
12	Mexico	Encuesta Nacional de Ingresos y Gastos de los Hogares	ENIGH	Yes	2014	National	73,592	Yes	Yes	From dates‡	Yes*	From dates‡	Yes	Household	Yes
13	Nicaragua	Encuesta Nacional de Hogares sobre Medicion de Nivel de Vida	EMNV	Yes	2014	National	29,443	Yes	Yes	1	Yes	1	Yes	Individual	Yes
14	Panama	Encuesta de Niveles de Vida	ENV	No	2008	National	27,162	Yes	Yes	1	Yes	1	Yes	Individual	Yes
15	Paraguay	Encuesta Permanente de Hogares	EPH	Yes	2014	National	20,272	Yes	Yes	3	Yes	3	Yes	Individual	Yes
16	Peru	Encuesta Nacional de Hogares	ENAHO	Yes	2015	National	119,515	Yes	Yes	1	Yes	12	Yes	Individual	Yes
17	Uruguay	Encuesta Nacional de Gastos e Ingresos de los Hogares	ENGIH	No	2006	National	20,772	No	Yes	3	Yes	3	Yes	Household	No

Data on OOP health expenditures

Components of income and OOP variables

Country	Level	Source/ Survey Module	Out-of-pocket expenditures						Income variables				
			Recall for out- patient (months)	Recall for in-patient (months)	Consul- tation	Meds and supplies	Exams	Hospitali- zation	Level	Labor	Pensions	Transfers	Other (rents/ capital etc.)
Argentina	Ind	Health	1	12	x	x	x	x	Ind	x			
Bolivia	Ind	Health	12	12	x	x	x	x	Ind	x	x	x	x
Brazil	Ind	Expenditure	3	3	x	x	x	x	Ind	x	x	x	x
Chile	N/A								Ind	x	x	x	x
Colombia	Ind	Health	1	12	x	x	x	x	Ind	x	x	x	x
Costa Rica	HH	Expenditure	1	1	x	x	x	x	Com	x	x	x	x
Dom. Rep.	Ind	Health	1	6	x	x	x	x	Ind	x	x	x	x
Ecuador	HH	Expenditure	3	3	x	x	x	x	Com	x	x	x	x
El Salvador	Ind	Health	1	1	x	x	x	x	Ind	x	x	x	x
Guatemala	Ind	Health	1	1	x	x	x	x	Ind	x	x	x	x
Honduras	Ind	Health	1	12	x	x	x	x	N/A				
Mexico	HH	Expenditure	1	1	x	x		x	HH	x	x	x	x
Nicaragua	Ind	Health	1	1	x	x	x	x	Ind	x	x	x	x
Panama	Ind	Health	1	1	x	x	x	x	Com	x	x	x	x
Paraguay	Ind	Health	3	3	x	x	x	x	Ind	x	x	x	x
Peru	Ind	Health	1	12	x	x	x	x	Ind	x	x	x	x
Uruguay	HH	Expenditure	1	1	x	x	x	x	Ind	x	x	x	x

Categorization of insurance types

Categorization of insurance types

Country	Level	Insurance type	
		Contributory	Non-contributory/uninsured
Argentina	Individual	PAMI, Obra social, Prepago a través de OS, Programas/planes estatales de salud, Prepaga por contratación voluntaria y emergencia médica	Uninsured
Bolivia	Individual	Caja nacional de salud, Caja de la banca privada, Banca estatal, COSSMIL, Seguros privados	Seguro universitario, Seguros de salud del gobierno autónomo departamental o municipal, Prestaciones de servicios de salud integral, Uninsured
Brazil	Household	Empresa de orgao publico, Municipal, Estadual, Militar, Private	Sistema unico de saude (SUS), Uninsured
Chile	Individual	FF.AA. Y del Orden, ISAPRE	Sistema Publico FONASA (all groups), Uninsured
Colombia	Individual	Contributivo, Fuerzas armadas, Ecopetrol, universidades publicas, Magisterio	Subsidiado (ARS, EPS-S), Uninsured
Costa Rica	Not available		
Dom. Rep.	Not available		
Ecuador	Individual	IESS general, IESS voluntario, Seguro privado, Seguro ISSFA o ISSPOL	IESS campesino, Seguro comunitario, Uninsured
El Salvador	Individual	ISSS cotizante, ISSS beneficiario, ISSS retirado, privado	Bienestar magisterial, IPSFA, Colectivo, Uninsured
Guatemala	Individual	Seguro privado	IGSS, Uninsured
Honduras	Individual	Seguro privado, Seguro IHSS, Seguro militar	Uninsured
Mexico	Individual	Seguridad social, Seguro privado	Seguro popular, Uninsured
Nicaragua	Individual	Seguro privado, Seguro social y privado, Seguro militar, Seguro social INSS	Uninsured
Panama	Individual	Seguro privado de salud, Caja de seguro social	Uninsured
Paraguay	Individual	Seguro privado individual, Seguro privado laboral, Seguro privado familiar, Sanidad militar, Sanidad policial, IPS	Uninsured
Peru	Individual	EsSalud, Seguro privado de salud, Entidad prestadora de salud, Seguro de FF.AA./Policiales	Seguro integral de salud, Seguro universitario, Seguro escolar privado
Uruguay	Not available		

Some methodological issues

Problem 1: Differences in recall period

- **In-patient services:** median is 1 month. Some use 3 months (Paraguay and Uruguay) and one uses 12 months (Bolivia)
 - Longer recall period can bias estimates downwards
- **Out-patient services:** median is 12 months. Some use 1 month (El Salvador, Guatemala, Nicaragua, Panama) and others 3 or 6 months
 - Shorter recall period can bias estimates downwards
- **What we do**
 - Compare levels when comparing within countries
 - Compare ratios relative to a reference population (15-24 year old) when comparing across countries
 - **Key assumption:** The magnitude of the bias is same for all age groups within countries

Problem 2: OOP expenditures at the individual level vs. at the household level

- **At household level if expenditure data is collected in expenditure modules, at individual level if in health modules**
 - Per-capita expenditures are could under- or over-state OOP expenditures depending on utilization and other things
 - Countries affected: Brazil, Costa Rica, Ecuador, Mexico and Uruguay
- **Imperfect solution**
 - Compute per capita health expenditures weighted by utilization
 - But complicated when recall periods in utilization and expenditures are different, as is the case in all five countries
- **What we do**
 - Use per-capita expenditures