

ORIGINAL RESEARCH

Transfers of value to prescribers of medications, health services, and health technologies in the context of the Colombian health care system. 2019-2023

Transferencias de valor recibidas por los prescriptores de medicamentos, servicios y tecnologías en salud en el sistema de salud colombiano. 2019-2023

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Abstract

Introduction: Since 2019, Colombia began to implement the *Registro de Transferencias de Valor entre actores del sector salud y la industria farmacéutica y de tecnologías en salud* (Registry of Transfers of Value between the Healthcare Sector and the Pharmaceutical and Health Technology Industry or RTVSS by its Spanish acronym), which involves prescribers of drugs, health services, and health technologies.

Objective: To present data on transfers of value to prescribers of health services, drugs, and health technologies in the context of the Colombian health system between 2019 and 2023.

Materials and methods: Descriptive study. Information was collected on transfers of value made to prescribers of health services, drugs, and health technologies (recipient 01) reported in the RTVSS from 2019 to 2023, namely, total amount of transfers of value, number of prescribers who received them, and number of entities that reported them. Searches were conducted between January 2 and 6, 2024 and December 13, 2024.

Results: The total amount of transfers of value to prescribers made between 2019 and 2023 was 148 717 790.26 USD, with 2023 being the year with the highest amount (46 050 673.92 USD) and 2020 the year with the lowest amount (16 343 447.54 USD). The item that contributed the most to the total amount of transfers of value in the period studied was the payment of honoraria (66 916 720.67 USD; 44.81%).

Conclusions: The year with the highest total amount of transfers of value and the highest number of recipients and entities reporting these transfers was 2023, which could also explain why the total amount was considerably higher that year than in the other years. In contrast, 2020 was the year with the lowest total amount of transfers, showing a significant difference compared to the other years, mainly from 2021 onwards, which is consistent with the implementation of mandatory and strict measures of social distancing and human mobility restrictions in the country due to the health crisis caused by the COVID-19 pandemic during most of 2020.

Resumen

Introducción. En Colombia, desde 2019 empezó a funcionar el Registro de Transferencias de Valor entre actores del sector salud (RTVSS), incluyendo los prescriptores de medicamentos, servicios y tecnologías en salud.

Objetivo. Presentar los datos sobre las transferencias de valor recibidas por prescriptores de servicios, productos farmacéuticos y tecnologías en salud en el sistema de salud colombiano entre 2019 y 2023.

Materiales y métodos. Estudio descriptivo. Se buscó información sobre las transferencias de valor entregadas a los prescriptores de servicios, productos farmacéuticos y tecnologías en salud (receptor 01) reportadas en el RTVSS desde 2019 hasta 2023, a saber, cuantía de las transferencias de valor, número de prescriptores que las recibieron y número de entidades que las reportaron. Las búsquedas se realizaron entre enero 2 y 6 de 2024 y en diciembre 13 de 2024.

Resultados. El monto total de las transferencias de valor recibidas por prescriptores entre 2019 y 2023 fue 148 717 790.26 USD, siendo 2023 el año con el monto más alto (46 050 673.92 USD) y 2020 el año con el monto más bajo (16 343 447.54 USD). El concepto que más contribuyó al monto total de transferencias de valor en el periodo estudiado fue el pago de honorarios (66 916 720.67 USD; 44.81%).

Conclusiones. 2023 fue el año con el monto total de transferencias de valor más alto y el mayor número de receptores y de entidades que reportaron estas transferencias, lo que también podría explicar porque el monto total fue considerablemente más alto que en los otros años. Por el contrario, 2020 fue el año con el monto total de transferencias más bajo, observándose una diferencia considerable en comparación con los otros años, principalmente a partir de 2021, lo cual coincide con la implementación de medidas obligatorias y estrictas de aislamiento social y restricción de la movilidad humana en el país debido a la crisis sanitaria causada por la pandemia por COVID-19 en gran parte de 2020.

Introduction

Even though requests for services or goods in the healthcare sector, such as the prescription of a drug or medical devices and in vitro diagnostic reagents, should be driven by the need for their use based on the best clinical evidence, some irregularities may arise in this process due to secondary interests (often financial) that might bias the prescriber's decision in favor of a company, thus generating a conflict of interest.^{1,2}

For example, according to Sah & Fugh-Berman,³ the literature has extensively described how pharmaceutical companies use financial and non-financial strategies to influence healthcare providers' decision-making and attitudes, such as gifts, honoraria, education grants, resources and funding, as well as the use of deference to induce a sense of reciprocity (the obligation to help those who have helped you). Similarly, Lo & Grady⁴ report that pharmaceutical company representatives are trained to use small gifts, such as meals and promotional products like pens and notebooks, to develop relationships with physicians and their staff as a strategy to persuade them to prescribe a certain drug based on feelings of gratitude and reciprocity. In this regard, Mitchell *et al.*⁵ noted that there was a positive association between receiving payments from the pharmaceutical industry and the prescription of drugs in 30 of the 36 studies included in their systematic review. Likewise, Peredo-Silva *et al.*⁶ reported that, based on the results of a survey conducted in Mexico to internists and cardiologists, the participants who reported prescribing patented drugs despite the availability of generic drugs were those who participated the most in promotional activities carried out by the pharmaceutical industry.

Along the same lines, it has been reported that of the 544 264 physicians who treated Medicare beneficiaries between 2015 and 2017 in the United States, 377 545 received payments from the pharmaceutical industry (approximately 69%)⁷ and that the annual expenditure by pharmaceutical companies on marketing activities directed at medical professionals increased from \$15.6 billion in 1997 to \$20.3 billion in 2016.⁸

One of the measures adopted in several countries to regulate these relations between the pharmaceutical industry and healthcare professionals and institutions are transparency systems that, although limited to reporting rather than making a value judgment or determining when there is a conflict of interest,⁹ can be useful for analyzing the impact that the delivery of incentives has on the prescription of drugs and health services by physicians.¹⁰ All this is very useful given that conflicts of interest between the medical profession and the pharmaceutical industry constitute an issue that requires comprehensive understanding and prevention measures articulated at various levels,¹¹ such as awareness campaigns with physicians and students, the search for alternative sources of funding for continuing medical education, and the development of clinical practice guidelines.¹²

For example, in the United States, the federal Open Payments database¹³ publishes information about the amounts and payment types made by pharmaceutical companies and medical device manufacturers to healthcare professionals and teaching hospitals.^{4,13} This transparency system is quite complete, since once the recipient is identified by last name or name (in the case of hospitals), detailed data on the recipient (e.g., specialty and address) and the benefits received (type of payment, reason for payment, year of receipt, and company that made the payment) are obtained. Concerning the utility of these data in detecting conflicts of interest, authors such as Lo & Grady⁴ point out that payment amount information alone is insufficient to establish whether or not there are conflicts of interest, and that, to guide conflict of interest policies, this database should be used in conjunction with other available data such as speaker presentations to assess the relationship between payment amounts and presentation bias.

In Colombia, according to Resolution 2881 of 2018 issued by the Ministry of Health and Social Protection (MinSalud),¹⁴ a transfer of value in the healthcare sector refers to the delivery of money, goods, or services in cash or in kind to any type of recipient by natural or legal persons associated with pharmaceuticals, medical devices, and in vitro diagnostic reagents. Since these transfers are considered part of the regular commercial activity of industries selling health technologies, and in order to make the relationship between recipients and contributors transparent, they must be reported every six months to the *Registro de Transferencias de Valor entre actores del sector salud y la industria farmacéutica y de tecnologías en salud* (Registry of Transfers of Value between the Healthcare Sector and the Pharmaceutical and Health Technology Industry or RTVSS by its Spanish acronym) in the *Plataforma de Intercambio de Información* (Information Exchange Platform or PSIS by its Spanish acronym) of the *Sistema Integral de Información de Protección Social* (Comprehensive Social Protection Information System of SISPRO by its Spanish acronym).

The RTVSS is a dynamic Excel table in which data on the transfers of value made every year can be identified, including the type of recipient, the type of transfer, the amount transferred, the person (natural or legal) reporting the transfer, among others. Unlike the Open Payments database, access is not free, and a username and password are required, which are provided by MinSalud after completing a training course. The types of transfers of value and recipients are described in Tables 1 and 2.

Table 1. Types of transfers of value in the healthcare sector that must be reported in the *Registro de Transferencias de Valor entre actores del sector salud y la industria farmacéutica y de tecnologías en salud*.

01. Delivery and/or payment of food and beverages
02. Payment for travel expenses, including transportation, lodging, and per diem.
03. Funding for clinical trials and health research.
04. Provision of software licenses and database subscriptions.
05. Funding for enrollment, tuition, or participation in a faculty or educational program, lecture, workshop, meeting, seminar, symposium, congress, scholarship, or other exclusively academic or continuing medical education activities.
06. Funding for the organization or hosting of conferences, lectures, workshops, meetings, seminars, symposiums, congresses, events, and other exclusively academic or continuing medical education activities.
07. Funding of publications or subscriptions to books, pamphlets, journals, scientific articles, etc.
08. Funding of patient programs, including those carried out directly by the reporting entities.
09. Delivery of items or documents containing information printed promotional advertising information.
10. Delivery of medical samples
11. Payment of fees for service contracts

Source: Own elaboration based on Resolution 2881 of 2018 issued by the Colombian Ministry of Health.¹⁴

Table 2. Types of receptors.

01. Prescribers of services, pharmaceutical products, and health technologies.
02. Persons working in a public or private healthcare institution.
03. Persons in charge of purchasing pharmaceutical products or health technologies.
04. Persons who lead or teach courses, programs or professional degrees in universities or other types of teaching or research entities.
05. Persons who work in the media and cover health issues.
06. Health professional organizations
07. Scientific, medical, or professional societies or associations.
08. Professional associations
09. Educational institutions
10. Patient or caregiver organizations
11. Non-governmental organizations, foundations and corporations directly or indirectly involved in providing or receiving health services.
12. Entities administering benefit plans and health service providers.
13. Media that cover health issues

Source: Own elaboration based on Resolution 2881 of 2018 issued by the Colombian Ministry of Health.¹⁴

In view of the foregoing, the objective of this article is to present data on the transfers of value received by prescribers of services, pharmaceutical products, and health technologies in the context of the Colombian healthcare system between 2019 and 2023.

Materials and methods

Descriptive study. Information was collected on transfers of value delivered to prescribers of healthcare services, drugs, and health technologies (recipient 01) reported in the RTVSS from 2019 (the year the registry began operating) through 2023 (last year reported at the end of the search period). Searches were conducted between January 2 and 6, 2024, and on December 13, 2024. Data on the amount of transfers of value, the number of prescribers that received them, and the number of entities (natural or legal persons) that reported the transfers are presented by type of transfer and year, as well as for the entire period and for all types of transfers. These values are directly created in the RTVSS database by cross-referencing the appropriate variables in Excel pivot tables.

The transfer amounts, expressed in Colombian pesos (COP) in the RTVSS, were converted to US dollars (USD) based on the exchange rates reported by the Colombian Central Bank¹⁵ at the end of December of each year, resulting in the following values in COP for 1 USD: 2019: 3 277.14 COP; 2020: 3 432.50 COP; 2021: 3 981.16 COP; 2022: 4 810.20 COP; and 2023: 3 822.05 COP.

To make the tables easier to read, the types of transfers of value to be reported in the RTVSS are listed under a summary name (Table 3).

Table 3. Summary name of the types of health sector transfers of value to be reported to the *Registro de Transferencias de Valor entre actores del sector salud y la industria farmacéutica y de tecnologías en salud*.

#	Type of transfer	Summary name of the type
01	Provision and/or payment of food and beverages	Food and beverages
02	Payment for travel expenses, including transportation and lodging	Travel
03	Funding for clinical trials and health research	Clinical trials and research
04	Provision of software licenses and database subscriptions	Software
05	Funding for enrollment, tuition, or participation in a faculty or educational program, lecture, workshop, meeting, seminar, symposium, congress, scholarship or other exclusively academic or continuing medical education activities	Education
06	Funding for the organization or hosting of conferences, lectures, workshops, meetings, seminars, symposiums, congresses, events, and other exclusively academic or continuing medical education activities	Organization of academic events
07	Funding for publications or subscriptions to books, pamphlets, journals, scientific articles, etc.	Publications
08	Funding of patient programs, including those carried out directly by the reporting entities	Patient programs
09	Delivery of items or documents containing printed promotional advertising information	Advertising
10	Delivery of medical samples	Medical samples
11	Payment of fees for service contracts	Honoraria

Source: Own elaboration based on Resolution 2881 of 2018 issued by the Colombian Ministry of Health.¹⁴

Results

The total amount of value transfers received by prescribers between 2019 and 2023 was 584 863 385 373 COP (148 717 790.26 USD), with 2023 being the year with the highest amount (176 007 976 949 COP, 46 050 673.92 USD), and 2020 the year with the lowest amount (56 093 732 131 COP, 16 343 447.54 USD). The payment of honoraria for service contracts was the type of transfer that contributed most to the total amount of transfers of value (262 115 588 015 COP, 66 916 720.67 USD; 44.81%), followed by the payment of travel expenses, including transportation and lodging (201 780 833 033 098 COP, 51 046 268.23 USD; 34.50%) (Table 4).

Table 4. Transfers of value in the health sector reported between 2019 and 2023 by type of transfer and year (amounts in Colombian pesos and U.S. dollars).

Type of transfer *	2019 COP/(USD)	2020 COP/(USD)	2021 COP/(USD)	2022 COP/(USD)	2023 COP/(USD)	Total COP/(USD)
01. Food and beverages	1 808 721 240 (551 920.65)	714 135 496 (208 051.12)	2 225 541 545 (559 018.36)	5 917 140 442 (1 230 123.57)	11 448 374 002 (2 995 349.09)	22 113 912 725 (5 544 462.74)
02. Travel	38 480 180 290 (11 742 000.74)	8 923 488 619 (2 599 705.35)	14 398 455 142 (3 616 648.19)	65 789 689 372 (13 677 121.4)	74 189 019 675 (19 410 792.55)	201 780 833 098 (51 046 268.23)
03. Clinical trials and research	325 155 179 (99 219.15)	3 189 485 989 (929 202.03)	2 880 559 353 (723 547.74)	2 232 656 947 (464 150.54)	7 182 737 181 (1 879 289.17)	15 810 594 649 (4 095 408.63)
04. Software	2 324 404 (709.27)	52 154 821 (15 194.41)	126 829 647 (31 857.46)	299 377 669 (62 238.09)	25 649 891 (6 711.02)	506 336 432 (116 710.25)
05. Education	7 892 993 061 (2 408 500.41)	6 623 681 537 (1 929 696.00)	14 656 672 964 (3 681 508.14)	15 339 195 703 (3 188 889.38)	16 884 809 045 (4 417 736.3)	61 397 352 310 (15 626 330.23)
06. Organization of academic events	740 263 644 (225 887.09)	1 028 788 763 (299 719.96)	2 307 368 790 (579 571.98)	3 080 743 956 (640 460.67)	2 374 201 702 (621 185.41)	9 531 366 855 (2 366 825.11)
07. Publications	42 883 822 (13 085.74)	18 229 859 (5 310.95)	113 677 447 (28 553.85)	268 548 775 (55 829.02)	335 426 768 (87 760.95)	778 766 671 (190 540.51)
08. Patient programs	8 646 620 (2 638.46)	60 747 700 (17 697.8)	14 516 774 (3 646.36)	83 096 000 (17 274.95)	9 536 573 431 (2 495 146.17)	9 703 580 525 (2 536 403.74)
09. Advertising	21 169 505 (6 459.74)	121 877 097 (35 506.8)	647 569 085 (162 658.39)	260 606 867 (54 177.96)	73 831 539 (19 317.26)	1125 054 093 (278 120.15)
11. Honoraria	21 453 147 206 (6 546 301.71)	35 361 142 250 (10 303 363.12)	103 635 586 400 (26 031 504.98)	47 708 358 444 (9 918 165.24)	53 957 353 715 (14 117 385.62)	262 115 588 015 (66 916 720.67)
Total	70 775 484 971 (21 596 723.04)	56 093 732 131 (16 343 447.54)	141 006 777 147 (35 418 515.47)	140 979 414 175 (29 308 430.58)	176 007 976 949 (46 050 673.92)	584 863 385 373 (148 717 790.26)

* Transfers of value related to the delivery of medical samples (type 10) are not calculated (they are registered as 0), so they are not included in the table.

Note: The transfer amounts, expressed in Colombian pesos (COP) in the *Registro de Transferencias de Valor entre actores del sector salud y la industria farmacéutica y de tecnologías en salud*, were converted to US dollars (USD) based on the exchange rates reported by the Colombian Central Bank¹⁵ at the end of December of each year, obtaining the following values in COP for USD 1: 2019: 3 277.14 COP; 2020: 3 432.50 COP; 2021: 3 981.16 COP; 2022: 4 810.20 COP; and 2023: 3 822.05 COP.

Furthermore, during the study period, 154 394 prescribers received transfers of value, with 2023 being the year with the highest number of prescribers (n=97 706). Most of these prescribers received transfers for delivery of medical samples (n=144 187) (Table 5).

Table 5. Number of prescribers who received transfers of value from the health sector by type of transfer and year.

Type of transfer	2019	2020	2021	2022	2023	Total number of recipients (2019-2023)*
01. Food and beverages	4 749	1 874	5 678	10 006	11 382	21 211
02. Travel	8 528	3 533	4 858	11 114	11 811	23 174
03. Clinical trials and research	61	102	121	136	262	438
04. Software	21	516	8 826	5 631	1 011	11 112
05. Education	3 078	3 193	4 575	3 721	3 583	11 774
06. Organization of academic events	250	230	392	598	963	1 962
07. Publications	629	109	624	134	33	1 421
08. Patient programs	4	2	6	11	6	26
09. Advertising	403	388	4 788	2 743	283	6 221
10. Medical samples	65 410	63 416	73 379	89 159	92 677	144 187
11. Honoraria	2 225	2 909	3 510	3 114	3 533	7 657
Total†	68 207	65 265	77 836	93 921	97 706	154 394

* A recipient may receive transfers in different years; however, the total number of recipients is only tallied once.

† A recipient may receive more than one type of transfer in the same year; however, the total number of recipients is tallied only once.

Finally, 179 entities reported making transfers of value to prescribers between 2019 and 2023. Consistent with what was observed for the number of recipients and the amount of transfers, 2023 was also the year with the highest number of entities reporting transfers of value (n=133) (Table 6). Payment of honoraria for service contracts (n=136) and payment of travel expenses, including transportation and lodging (n=130), were the most frequently reported types of transfers of value by the largest proportion of reporting entities that year.

Table 6. Number of entities that reported transfers of value from the health sector to prescribers by type of transfer and year.

Summary concept	2019	2020	2021	2022	2023	Total number of reporting entities*
01. Food and beverages	55	41	44	61	61	88
02. Travel	85	66	60	91	91	130
03. Clinical trials and research	10	15	13	12	11	29
04. Software	3	4	4	3	1	8
05. Education	66	61	67	71	59	112
06. Organization of academic events	19	17	30	29	25	63
07. Publications	5	7	7	8	5	19
08. Patient programs	2	2	2	5	2	8
09. Advertising	7	12	15	7	6	26
10. Medical samples	47	59	60	62	66	79
11. Honoraria	74	93	98	98	102	136
Total†	112	125	129	131	133	179

* A recipient may receive transfers in different years; however, the total number of recipients is only tallied once.

† A recipient may receive more than one type of transfer in the same year; however, the total number of recipients is tallied only once.

Discussion

Transfers of value from the pharmaceutical and medical technology industries are considered legal in Colombia since they are part of the activity of these sectors.¹⁴ In this context, transparency measures, such as Resolution 2881 of 2018,¹⁴ are intended to raise awareness of the relationships between the industry and healthcare professionals. However, while said resolution introduced the RTVSS, it only requires reporting transfers when the sum of the amounts delivered to a single recipient exceeds one legal minimum monthly salary in force during a semester for any type of transfer, with the exception of transfers in the categories “delivery and/or payment of food and beverages” and “delivery of documents or items containing printed promotional advertising information”, for which the minimum amount for reporting the transfer is three legal minimum daily salaries in force.¹⁴

In 2020, due to the COVID-19 pandemic, the Colombian government declared a health emergency¹⁶ and established preventive social isolation and strict confinement measures on March 25 with some exceptions (essential activities),¹⁷ which were gradually made flexible from May 4, 2020 until mid-2022.^{18,19} In fact, by means of decree 1168 of August 25, 2020,²⁰ which came into force on September 1, the Colombian government lifted the measures of mandatory preventive social isolation and initiated a new stage of sanitary emergency control called selective isolation, in which the measures of individual distancing and restrictions on the agglomeration of people in mass events and in closed places such as bars and nightclubs were maintained.

The COVID-19 health crisis and the precautionary social isolation, restriction of human mobility, and mandatory strict confinement measures implemented since 2020 to contain the spread of the virus could explain why, compared to 2019, the amounts of transfers for food and beverages, travel expenses, education, organization of academic events, and publications decreased significantly in 2020, but increased (some dramatically) in 2021, when many of these measures were lifted. They could also explain the inverse behavior noted during these years in the values of transfers for clinical trials and patient programs (an increase in 2020 and a decrease in 2021), as well as the constant increase in the amounts of transfers for advertising, honoraria, and software.

While tourism, entertainment, and transportation were the sectors most affected by these measures, the pharmaceutical industry was also severely affected during this period. For example, marketing strategies had to adapt from a traditional sales model for selling products and services relying on medical visitors to a sales model through digital channels.²¹ This may also explain the increase in the amounts of advertising transfers in 2020 and 2021 and their decrease in 2022, since many of the pre-pandemic work practices were fully resumed that year.

Another noteworthy finding is that 2023 was the year with the highest total amount of transfers in the study period (mainly for travel expenses, honoraria, education, food and beverages, in descending order), being considerably higher than the second highest total amount (+30 000 000 000 000 COP or +10 000 000 000 USD compared to 2021). However, while aspects such as annual inflation could partially explain a small increase, this finding is entirely expected given that 2023 was also the year with the highest total number of recipients and entities reporting these transfers during the study period. Therefore, it is recommended that further studies explore the reasons that led to a higher number of transfers and recipients in that year and whether this trend continued in 2024.

In Colombia, drugs may be prescribed by physicians, dentists, and optometrists, who are listed as recipients of transfers of value.¹⁰ The highest number of recipients during the

period studied was observed in 2023, with 97 706, when the *Registro Único Nacional del Talento Humano en Salud* (Unique National Registry of Human Talent in Health - ReTHUS by its Spanish acronym) and SISPRO had records of 258 548 people working in the aforementioned professions (37.79%).

Unlike Open Payments, where access to information on the amounts and types of payments made by pharmaceutical companies and medical device manufacturers to healthcare professionals and teaching hospitals in the United States is public and open, access to RTVSS data, although public, is not open to the general population, as it requires a username and password that are only granted after completing a training course. Therefore, the information reported here is the first step towards public and open access to essential data needed to understand the health sector in Colombia. Furthermore, according to a literature review, this is the first study to address transfers of value in the health sector in Latin America.

Being aware of the data on the transfers of value received by prescribers of services, pharmaceutical products, and health technologies in the context of the Colombian health system is highly relevant. In this regard, authors such as Fickweiler *et al.*²² and Tringales *et al.*²³ point out that interactions between physicians and the pharmaceutical industry affect the prescribing behavior of the former and can contribute to irrational prescribing of drugs,²² and that physicians do not always recognize the subconscious bias that industry relationships have on their decision making.²³

The limitations of the present study include the minimum thresholds for reporting transfers of value in the RVTSS, which, as described above, prevents us from knowing the exact data on this commercial activity, as well as its descriptive design, which does not allow us to establish a presumed causal relationship that could explain the annual changes observed in transfers during the period studied. In this sense, forthcoming studies with more complex methodological designs should explore related hypotheses.

Conclusions

Transfers of value received by prescribers of services, pharmaceutical products, and health technologies in Colombia are considered part of the commercial activity of entities related to the industry of pharmaceuticals, medical devices, and in vitro diagnostic reagents. The annual data on these transfers between 2019 and 2023 show that 2023 was the year with the highest total amount of transfers made and the highest number of recipients and entities reporting these transfers in the study period, which could also explain why the total amount was notably higher compared to the other years. On the contrary, 2020 was the year with the lowest total amount of transfers, with a considerable difference compared to the other years, mainly from 2021 onwards, which concurs with the implementation of mandatory and strict measures of social isolation and restriction of human mobility in the country due to the health crisis caused by the COVID-19 pandemic during most of 2020.

Conflicts of interest

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