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INTRODUCCIÓN

Caesarean delivery rates in Mexico are among the highest in the world. Given heightened public and professional awareness of this problem and the updated 2014 national guidelines to reduce the frequency of caesarean delivery, we analyzed trends in caesarean delivery by type of facility in Mexico from 2008 to 2017.

METODOLOGÍA

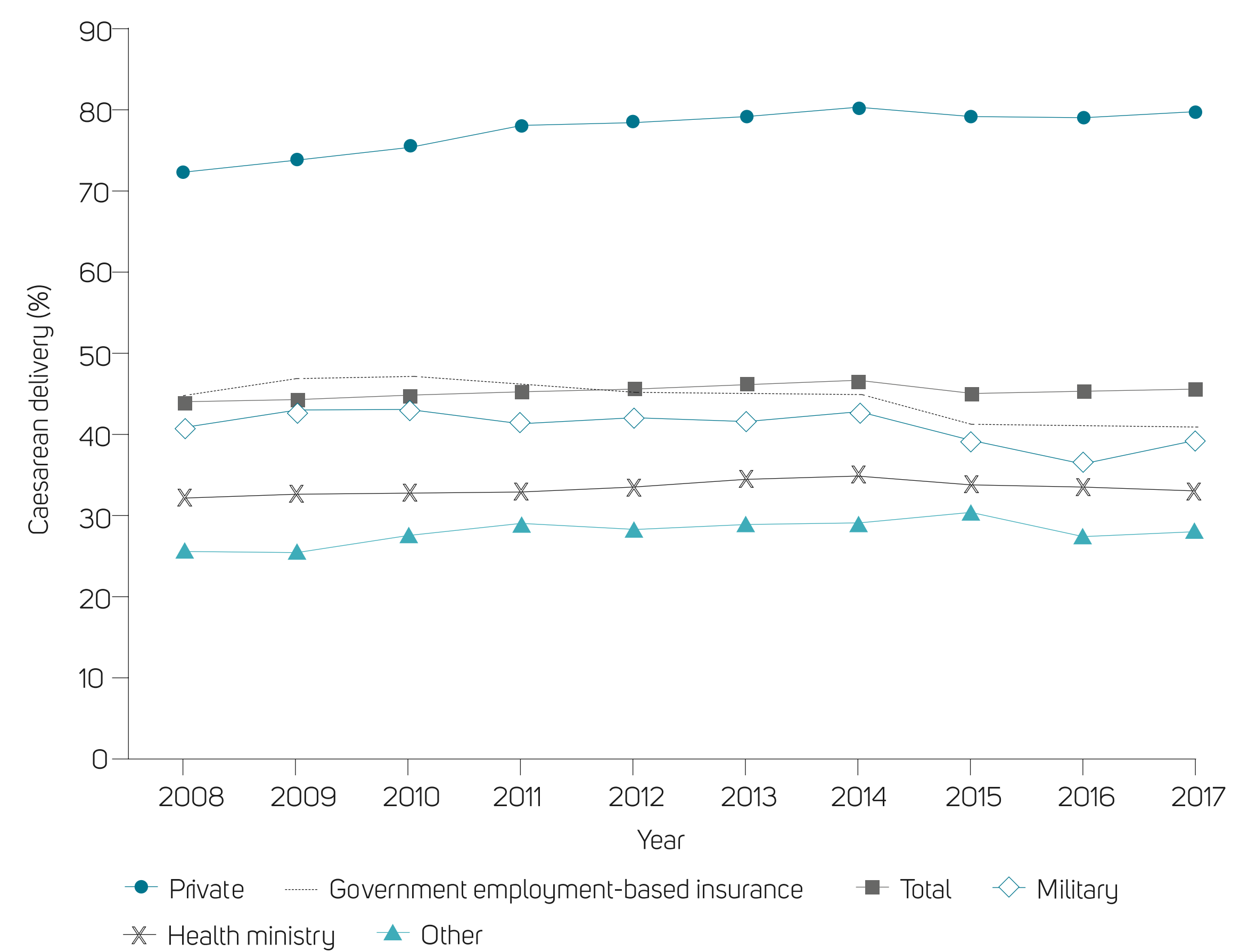
We obtained birth-certificate data from the Mexican General Directorate for Health Information and grouped the total number of vaginal and caesarean deliveries into five categories of facility: health-ministry hospitals; private hospitals; government employment-based insurance hospitals; military hospitals; and other facilities. Delivery rates were calculated for each category nationally and for each state.

RESULTADOS

On average, 2,114,630 (95% confidence interval, CI: 2,061,487–2,167,773) live births occurred nationally each year between 2008 and 2017. Of these births, 53.5% (1,130,570; 95% CI: 1,108,068–1,153,072) were vaginal deliveries, and 45.3% (957,105; 95% CI: 922,936–991,274) were caesarean deliveries, with little variation over time. During the study period, the number of live births increased by 4.4% (from 1,978,380 to 2,064,507). The vaginal delivery rate decreased from 54.8% (1,083,331/1,978,380) to 52.9% (1,091,958/2,064,507), giving a relative percentage decrease in the rate of 3.5%. The caesarean delivery rate increased from 43.9% (869,018/1,978,380) to 45.5% (940,206/2,064,507), giving a relative percentage increase in the rate of 3.7%. The biggest change in delivery rates was in private-sector hospitals.

DISCUSIÓN

Since 2014, rates of caesarean delivery have fallen slightly in all sectors, but they remain high at 45.5%. Reducing caesarean delivery rates in Mexico will require more than public awareness, guidelines and policies. First, an improved data collection and quality assurance system is necessary to better understand the consequences of high caesarean delivery rates over time. Second, increased oversight and regulation of private insurance companies is needed to reverse the perverse economic incentives that contribute to a very high caesarean delivery rate in the private sector. Finally, the medical and public health community must take an active role in educating the next generation of obstetricians and gynecologists, the public and the insurance industry on the well documented benefits of vaginal delivery for both women and their newborns.



Note: The values are percentages of total live births per year.

Figura 1. Rates of caesarean delivery by sector, Mexico, 2008–2017

State	No. of total live births		Vaginal deliveries, no. (%)		Caesarean deliveries, no. (%)		Other deliveries, no. (%) ^a	
	2008	2017	2008	2017	2008	2017	2008	2017
Aguascalientes	26741	29045	13 428 (50.2)	14 816 (51.0)	12 645 (47.3)	13 932 (48.0)	668 (2.5)	297 (1.0)
Baja California	46713	53086	26522 (56.8)	29334 (55.3)	19 772 (42.3)	23495 (44.3)	419 (0.9)	257 (0.5)
Baja California Sur	11 180	11 891	5 893 (52.7)	5 757 (48.4)	5 182 (46.4)	6 010 (50.5)	105 (0.9)	124 (1.0)
Campeche	13 369	14 098	7 317 (54.7)	8 738 (62.0)	5 996 (44.9)	5 283 (37.5)	56 (0.4)	77 (0.5)
Chiapas	64167	90897	43 119 (67.2)	60 312 (66.4)	20 798 (32.4)	28 263 (31.1)	250 (0.4)	232 (0.2)
Chihuahua	54167	61 534	34 125 (63.0)	37 287 (60.6)	19 516 (36.0)	23 165 (37.6)	526 (1.0)	1082 (1.8)
Ciudad de México	142 110	132 363	73 778 (51.9)	65 025 (49.1)	66 274 (46.6)	64 932 (49.1)	2058 (1.4)	2406 (1.8)
Coahuila	55121	57 274	30 959 (56.2)	31 809 (55.5)	23 294 (42.3)	24 482 (42.7)	868 (1.6)	983 (1.7)
Colima	12 731	12 676	6 460 (50.7)	7 522 (59.3)	6 217 (48.8)	5 058 (39.9)	54 (0.4)	96 (0.8)
Durango	29036	32 538	18 420 (63.4)	19 723 (60.6)	10 354 (35.7)	12 495 (38.4)	262 (0.9)	320 (1.0)
Guanajuato	117 299	116 367	61 760 (52.7)	56 489 (48.5)	53 515 (45.6)	57 479 (49.4)	2024 (1.7)	2399 (2.1)
Guerrero	45070	60081	28 310 (62.8)	39 827 (66.3)	16 636 (36.9)	19 646 (32.7)	124 (0.3)	608 (1.0)
Hidalgo	47 702	46 773	25 131 (52.7)	24 281 (51.9)	24 281 (51.9)	21 782 (46.6)	112 (0.2)	710 (1.5)
Jalisco	134 579	140 725	68 160 (50.6)	69 351 (49.3)	64 075 (47.6)	67 948 (48.3)	2344 (1.7)	3426 (2.4)
México	290337	258101	158 385 (54.6)	136 791 (53.0)	130 463 (44.9)	119 844 (46.4)	1489 (0.5)	1466 (0.6)
Michoacán	82883	86942	45 784 (55.2)	44 873 (51.6)	36 548 (44.1)	41 930 (48.2)	551 (0.7)	139 (0.2)
Morelos	31 860	31 550	16 565 (52.0)	15 741 (49.9)	15 234 (47.8)	15 277 (48.4)	61 (0.2)	532 (1.7)
Nayarit	18 969	17 979	12 920 (68.1)	10 895 (60.6)	5 969 (31.5)	6 892 (38.3)	80 (0.4)	192 (1.1)
Nuevo León	76 278	92 642	27 919 (36.6)	36 027 (38.9)	39 261 (51.5)	49 234 (53.1)	9098 (11.9)	7381 (8.0)
Oaxaca	41 869	69747	27 071 (64.7)	39 204 (56.2)	14 680 (35.1)	29 890 (42.9)	118 (0.3)	653 (0.9)
Puebla	111 821	125 336	58 248 (52.1)	60 757 (48.5)	53 387 (47.7)	63 798 (50.9)	186 (0.2)	781 (0.6)
Querétaro	40195	41 233	20 760 (51.6)	21 273 (51.6)	18 970 (47.2)	19 488 (47.3)	465 (1.2)	472 (1.1)
Quintana Roo	23576	27 915	13 722 (58.2)	16 037 (57.4)	9 715 (41.2)	11 317 (40.5)	139 (0.6)	561 (2.0)
San Luis Potosí	49125	48007	33 108 (67.4)	30 665 (63.9)	15 101 (30.7)	16 397 (34.2)	916 (1.9)	945 (2.0)
Sinaloa	50 858	50 872	25 761 (50.7)	24 237 (47.6)	24 943 (49.0)	26 502 (52.1)	154 (0.3)	133 (0.3)
Sonora	49 327	44 958	27 848 (56.5)	23 685 (52.7)	21 269 (43.1)	20 963 (46.6)	210 (0.4)	310 (0.7)
Tabasco	50 247	47 877	28 381 (56.5)	26 354 (55.0)	21 441 (42.7)	21 274 (44.4)	425 (0.8)	249 (0.5)
Tamaulipas	68 054	57 602	34 065 (50.1)	26 487 (46.0)	32 787 (48.2)	30 192 (52.4)	1202 (1.8)	923 (1.6)
Tlaxcala	23 208	23 896	12 681 (54.6)	11 559 (48.4)	10 480 (45.2)	12 007 (50.2)	47 (0.2)	330 (1.4)
Veracruz	106 621	114 921	60 279 (56.5)	59 263 (51.1)	45 969 (43.1)	54 405 (47.3)	373 (0.3)	1253 (1.1)
Yucatán	35 070	35 573	17 591 (50.2)	18 182 (51.1)	17 274 (49.3)	17 076 (48.0)	205 (0.6)	315 (0.9)
Zacatecas	28 097	30 004	18 861 (67.1)	19 654 (65.5)	8 794 (31.3)	9 750 (32.5)	442 (1.6)	600 (2.0)

^a Other deliveries are forceps, problematic deliveries, other and unspecified.

Tabla 1. Live births by state and mode of delivery, Mexico, 2008 and 2017

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