LAC Region

IMPACT OF COVID-19 ON ACCESS TO CONTRACEPTIVES IN THE LAC REGION

Special Report

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INTRODUCTION

The coronavirus disease pandemic (COVID-19) could critically undermine progress to end unmet family planning needs by 2030 in the Latin American and the Caribbean (LAC) region. In this paper, we examine how access to contraceptives in the region could deteriorate as an immediate effect of service disruption as well as the indirect result of declines of personal and household income.

Initial analysis of the potential impacts of COVID-19 on access to contraceptives had emphasized the immediate effect of the pandemic, including measures adopted to contain the spread of the coronavirus, on the disruption of sexual and reproductive health services, particularly those provided by the public sector. This disruption is the combined result of halts in the contraceptive supply chain (e.g., interruption of manufacture of key pharmaceutical components and transportation delays of contraceptive commodities), straining of health services systems (e.g., suspension of certain services and diversion of equipment and staff to the response to the pandemic), and a drop in demand for sexual and reproductive health services due to either reluctance to attend healthcare facilities and/or restrictions of mobility. The importance of these factors was documented in previous outbreaks[1,2]. Initial UNFPA estimates of the magnitude of the impact of these factors in low- and middle-income countries suggested that between 13 to 51 million women would be unable to use modern contraceptives depending on the duration of lockdowns (3, 6, 9 or 12 months) and the severity of the disruption (low, medium or high)[3]. Estimates from Guttmacher were in the upper limit of this range[4].

In addition to immediate effects of the lockdown on service disruptions, COVID-19 can affect access to contraceptives indirectly, through its effect on reductions in household incomes. Indeed, COVID- 19 is forecasted to have devastating economic consequences for the LAC region. The United Nations Economic Commission for Latin America and the Caribbean (ECLAC) currently estimates a 5.3% drop in GDP, a 3.4 percentage points rise in unemployment of and a consequent rise in poverty of at least 4.4 percentage points[5] [6,7]. This estimation is convergent with what international economic organizations have estimated to this date[8,9]. The region's heavy reliance on out-of-pocket spending to fund contraceptives use, coupled with widespread use of short acting reversible contraceptives (mostly the pill), offer wide avenues for the economic crisis to impact access

to contraceptives through the private sector as well[10,11].

In this study, we obtained estimates of drop in contraceptives use as a result of the COVID-19 through both the public sector (due to supply disruption) and the private sector (due to income loss). For the public sector, shortage estimates were obtained from a survey conducted among Ministries of Health's staff from 11 LAC countries participating in SEPREMI, an online platform that tracks public procurement of reproductive health supplies in the region. The contraction in the private sector was estimated using recent results of the sensitivity of sales to macroeconomic fluctuations based on a panel of sales in 12 countries in the LAC region during a five year period that includes the latest global economic crisis[12]. Besides the drop in Couple Years Protection (CYP), we derived implications in terms of other relevant health outcomes based on extant evidence.

METHODS

Methods The contraction of access through private sector was estimated using recent results from Godoy Garraza et al[13]. This study used panel data on 12 LA countries during a 5 year period that includes the most recent global crisis to examine the sensitivity of private consumption to macroeconomic fluctuations. The study revealed that variations in poverty and unemployment rates were important predictors of variations in contraceptive sales. Particularly, a one percentage point increase in the poverty or unemployment rate predicted about a two percentage point decrease in contraceptive retail sales growth rate (measured in couple-years of protection [CYP] per capita). The forecasted increase in poverty for 17 LAC countries was obtained from ECLAC[6,7,13]. Baseline contraceptives consumption (i.e., during 2019) was estimated using "random forest",[14] a flexible nonparametric procedure, based on the original information on sales used in Godoy Garraza et al[13.] together with information on modern contraceptive prevalence,[15] short acting reversible contraceptive prevalence,[11] GDP, poverty[16] and population of females 15 to 49 years old[17] over the last 20 years.

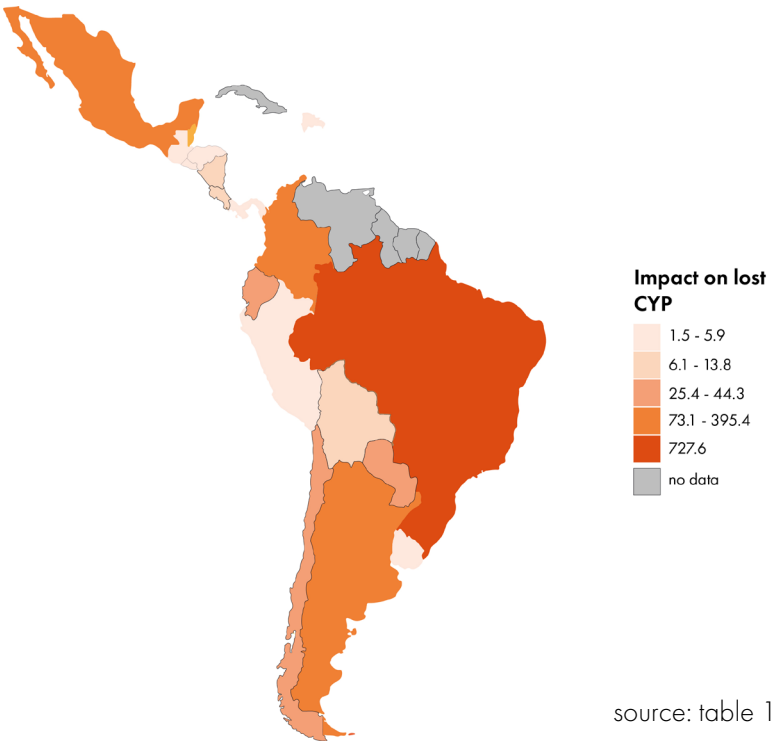
Shortage on the public sector was estimated based on a survey of Ministries of Health (MoH) staff from 11 out of the 14 LAC countries participating in SEPREMI, an online platform sponsored by ForoLAC, the regional chapter of the Reproductive Health Supplies Coalition, to track reproductive health supplies prices and procurement conditions by the public sector[18].The information collected included both current stocks and ongoing purchases (including estimated arrival dates) which were contrasted with the estimated monthly use through the end of 2020. The estimated monthly use did not incorporate the potential increase in demand from displaced private sector users. An estimate for all LAC countries was obtained by simple linear extrapolation based on the population of women age 15 to 49 in participating countries (close to 80% of the region's total). This rough procedure is likely an underestimation of shortage, since relatively wealthier economies in the region are among the respondents.

Once the impact of COVID-19 on access to modern contraceptives was quantified in terms of CYP loss, we derived estimates of the impact in terms of other relevant reproductive health outcomes using extant evidence. Specifically, we assumed an unintended pregnancy, abortion, maternal death, and neonatal death for each 3.5; 7.5; 1,980; and 150 CYP lost, respectively, based on Darroch's work[19]. The number of CYP not used would equal to the number of women losing consistent access to contraceptives only under the assumption that any impacted woman is affected during an entire year. To explore the sensitivity of the result to alternative assumptions, we hypothesized that the CYP not used reflected the behaviour of three groups of women of approximately equal size, each affected, respectively, during a month, three months and the entire year. Under this hypothesis, 2.2 women would lose consistent access to modern contraceptives per CYP not used.

RESULTS

The estimated drop in contraceptives access through the private sector is presented in Table 1. Overall, a drop of between 900 thousand and 2.6 million CYP was estimated. Argentina, Brazil and Mexico would concentrate close to three fourths of such loss.

Levels of impact of COVID-19 on the access to modern contraceptives through the private sector



source: table 1

Table 1: CYP not acquired through private sector

Country	Poverty* 2019	Poverty* 2020	CYP not acquired (000) through private sector [95% Credible Intervals]
Argentina	26.7	33.6	**199.7** [104.3-296.1]
Bolivia (Plurinational State of)	32.3	34.4	**6.1** [3.2-9.0]
Brazil	19.4	24.3	**727.6** [379.9-1078.9]
Chile	9.8	12.7	**38.8** [20.3-57.6]
Colombia	29.0	31.5	**73.1** [38.2-108.4]
Costa Rica	16.0	18.4	**8.2** [4.3-12.2]
Ecuador	25.7	30.8	**44.3** [23.1-65.7]
El Salvador	23.7	36.4	**5.9** [3.1-8.8]
Mexico	41.9	47.8	**395.4** [206.5-586.3]
Guatemala	49.6	50.5	**4.1** [2.1-6.0]
Honduras	54.8	57.1	**5.2** [2.7-7.7]
Nicaragua	47.1	51.6	**13.8** [7.2-20.5]
Panama	14.2	14.9	**1.6** [0.8-2.4]
Peru	19.4	20.3	**3.1** [1.6-4.6]
Paraguay	16.5	19.1	**25.4** [13.3-37.6]
Uruguay	2.9	4.8	**5.1** [2.7-7.6]
Dominican Republic	20.3	21.1	**4.0** [2.1-5.9]
LAC**	**30.3**	**34.7**	**1,764.9 [921.6-2,617.0]**

* Based on ECLAC 7
** Include estimate for all 33 LAC countries

The estimated shortage in the public sector measured in CYP is presented in Table 2. Overall, a loss of close to 6 million CYP was estimated. Brazil concentrates more than two thirds of the shortage.

Table 2 Contraceptive shortage in the public sector, measured in CYP

Country	**CYP Shortage** (000)
Argentina	**146.6**
Brazil	**4,260.2**
Chile	**24.7**
Costa Rica	**0.0**
Dominican Republic	**13.4**
Guatemala	**21.9**
Haiti	**0.7**
Honduras	**128.3**
Mexico	**0.0**
Nicaragua	**2.6**
Peru	**28.2**
LAC*	**5,946.6**

Based on survey of MoH staff from 11 countries participating in SEPREMI.
* Include estimate for all 33 LAC countries.

Taken together and assuming no remedial measures are adopted, the estimated drop in CYP would result in 2.2 million unintended pregnancies, over 1 million abortions, 3.9 thousand maternal deaths and 51.4 thousand infant deaths. Assuming the drop in CYP resulted from the behaviour of three different segments of approximately equal sizes of women affected for a month, three months and the entire year, the loss of close to 8 million CYP could potentially affect over 17 million women.

According to UN Population Division data, at the beginning of 2020 LAC registered 19.72 Million of women with unmet need for Family Planning (Modern methods)16. So, adding those around 17 Million of women that will discontinue the use of modern contraceptives because the impact of COVID-19, it is expected that at the end of the year the percentage of all women in reproductive health registering unmet need for modern contraceptives will be increased from 11.4% to 16,3% (Chart 1).

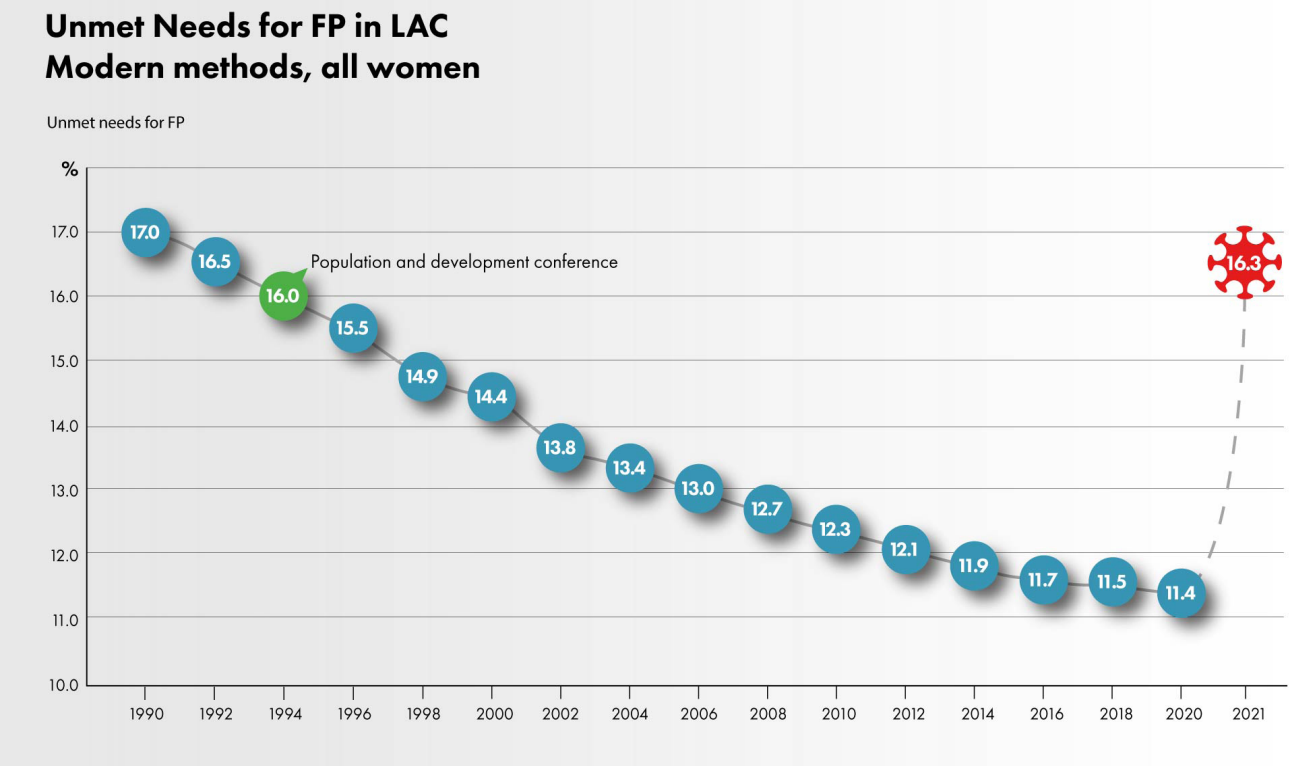


Table 3 Implications

Outcome	**Number** (000) [95% Credible Intervals]
Total CYP shortage	**7,711.5 [6,868.2-8,563.5]**
Women potentially affected*	**17,136.7 [15,262.6-19,030.1]**
Unintended pregnancies*	**2,203.3 [1,962.3-2,446.7]**
Abortions*	**1,028.2 [915.8-1,141.8]**
Maternal Death*	**3.9 [3.5-4.3]**
Child death*	**51.4 [45.8-57.1]**

Assuming the drop in CYP reflects the behaviour of 3 segments of about equal size, i.e. women affected during a month, 3 months and the entire year.
* Using ratio of health outcome to CYP from Darroch [20]

DISCUSSION

The COVID-19 pandemic is impacting access to modern contraceptive through several channels. We obtained estimates of potential CYP lost through the public sector due to supply shortages and through the private sector due to drops in household incomes. Based on the number of CYP not accessed and that were forecasted, we derived the implication in terms of other relevant reproductive health outcomes. Our analysis complements other recent estimations that focus primarily on immediate services disruptions due to lockdown measures.

These results should be interpreted in the context of the limitations of the study. First, private sector estimations are based on relatively outdated sales information, which further excludes some important markets. The period considered is particularly pertinent to study the sensitivity of sales to macroeconomic fluctuations, encompassing the most recent global financial crisis. However, to estimate CYP acquired in 2019 and CYP acquired in countries not included in the original sample, requires a rather serious extrapolation exercise. This rich set of auxiliary information coupled state of the art estimation techniques to at least partially ameliorate these issues. Second, public sector estimations rely on the accuracy of key informant input. Generally, these are knowledgeable staff in key leading roles in the sexual and reproductive health programs in their respective countries. Nevertheless, the reliability of measures obtained in this way has not been formally assessed. Finally, as in other analyses of this type, the forecast ignores remedial measures that governments across the region started to put in place, particularly to ameliorate lost income.

The COVID-19 pandemic could critically undermine progress to end unmet need for family planning by 2030 in the region. LAC governments and their partners, including donors and international and nongovernmental organizations, should take decisive actions to avert this potential sexual and reproductive health crisis.

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