

Blurred Lines: the effect of electing a party with religious links on Reproductive and Neonatal Health

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Abstract

In this paper, I examine whether electing a party affiliated with Neo-Pentecostal interest groups affects health outcomes at the municipality level. The analysis exploits close local elections and focuses on reproductive health, analyzing women's access to prenatal care, inputs and health practices used during delivery, and newborn health status. I find that a party strongly linked to religious groups winning the mayoral elections is linked to a decrease in the number of prenatal care visits and to their postponement. The health of newborns is also negatively associated with the election of such parties, leading to a higher likelihood of microcephaly and of being in bad health in the minutes following birth. On the other hand, no correlation is found between the occurrence of premature births, health input usage, and delivery methods.

1 Introduction

During the past decades, a new wave of political Conservatism has been on the rise in Brazil (IBGE Census, 1872-2010). Spurred by the expansion of Neo-Pentecostal churches throughout the country, religious-based views have permeated public policy debates, bringing into question current reproductive health policies and hampering the efforts to increase their provision to society. Among the targeted policies are the distribution of menstrual products ¹, exceptional cases in which abortion is allowed ², and educational interventions in schools³ aimed at reducing underaged pregnancies, sexual violence and the spread of STDs.

In addition to this shift in public opinion towards conservatism, it has also become increasingly common for religious figures to present themselves as candidates in local and regional level elections ⁴, successfully leveraging their religious influence to attract voters (Costa et al, 2022). In three decades, the number of Congress members affiliated to the Evangelical Front has experienced a nearly fourfold increase.

In this context, whether the increasingly blurred lines between politics and religion has had any impact on women's reproductive health in Brazil is assessed using a regression discontinuity design. I exploit municipal elections that took place in 2016, and compare health outcomes between municipalities that nearly elected a Conservative Mayor, to those that only did so by a small margin.

Due to a lack of information on candidates' religious preferences and to the under reporting of religious occupations, I analyze Mayor candidates affiliated to parties whose share of Congress members in the Evangelical Front is large. My assumption is that the political affiliation with such parties is correlated with a candidate's own political orientation, or that some

¹<https://www.theguardian.com/global-development/2021/oct/11/bolsonaro-blocks-free-tampons-and-pads-for-disadvantaged-women-in-brazil>

²<https://www.washingtonpost.com/world/2022/07/02/brazil-child-rape-abortion/>

³In the 2014-2024 National Education Plan, teacher capacity building sessions on sexual education were foreseen. However, plans for the inclusion of reproductive health education in the curriculum were put aside in the 2017 "Common Core" Curriculum (BNCC) (Barbosa et al, 2019;)

⁴<https://g1.globo.com/politica/eleicoes/2020/eleicao-em-numeros/noticia/2020/10/01/mais-de-87-mil-candidatos-adotam-titulos-religiosos-no-nome-de-urna.ghtml>

level of pressure might be exerted by fellow party members.

Because of the stark importance of Municipal government in the provision of health services through the Brazilian Unified Health System, I expect that the election of such Mayors will have a negative impact on women's health indicators.

2 Literature Review

This study relates to the broader literature on the effect of politicians' individual characteristics on policy-making. This type of analysis has been conducted extensively in other countries, mainly focusing on the effect of legislator gender on various development outcomes. For instance, Bhalotra and Clots-Figueiras (2011) look at the impact of gender on health, finding that female legislators are more likely to invest in health infrastructure, and that increasing women's political representation improves health outcomes such as breastfeeding and antenatal care. In spite of the more common research line focused on candidates' gender, some papers have looked more specifically at the effect of religious views.

In India, Bhalotra et al (2021) provide evidence on the impact of legislator religion on reproductive health outcomes. The analysis exploits close elections to understand the impact of religious identity⁵ of candidates to the state legislative assembly on sex-selective abortion. They find that, while measures to prevent sex-selective abortion are in place regardless of legislator religion, Muslim politicians appear to be more effective in controlling gender imbalances at birth due to their lower tolerance towards pregnancy termination. Using a similar strategy, Bhalotra et al (2013) find that the religious identity of Indian legislators has impacts on broader health outcomes, with Muslims leaders leading to higher neonatal and infant survival rates.

Similar empirical approaches have also been used to identify the effects of policy-makers' characteristics in Brazil. Brollo and Troiano (2016) study the effects of candidate gender on a plethora of indicators⁶ using close local elections. The study finds that in Brazilian

⁵Proxied by the candidate having a Muslim or non-Muslim name.

⁶Corruption, management style, future electoral outcomes and on the provision of health and education ser-

municipalities with a female Mayor, women are 1.6 percentage points more likely to have had a prenatal visit and 1 percentage point less likely to have a premature delivery.

Due to the decentralized nature of the government in Brazil, literature has also extensively looked at political alignment between elected officials at local, state and national levels. Brollo and Nannicini (2012) find that discretionary infrastructure funding received by Mayors from the Federal government is higher when the local manager is affiliated with the president's coalition or party.

While many studies look at the effect of candidates' characteristics on health outcomes, including party affiliation alignment, no research product appears to have looked directly at politician religion or affiliation to a Conservative party in Brazil. In this particular country, a candidate's religion cannot be inferred by their name, and simply looking at the person's declared occupation is likely to severely underestimate the number of religious authorities running for office⁷. Nevertheless, under the assumption that party affiliation reflects a candidate's own viewpoint to some extent, their affiliation to a party with a large share of fundamentalist members should be a good indicator of a Mayor's own attitude towards women's health.

3 Context

3.1 Brazil's Political Environment

3.1.1 Institutional Background

Brazil is a Federative Republic with three government levels: national, state, and local. At the local level, the country is subdivided into 5,570 municipalities, which elect their executive and legislative representatives (the mayor and city councillors, respectively) through a direct election every four years. In a given election for the local executive branch, the voters will elect a Mayor through either majority voting (if the Municipality has more than 200,000 voters) or

vices

⁷In recent elections, religious-linked candidates have been increasingly omitting their ties to a Neo-Pentecostal church. <https://www.politize.com.br/candidatos-religiosos/>

through plurality voting, for smaller centers.

3.1.2 Conservatism and the rise of Neo-Pentecostal Churches

Catholicism, the most widespread religion in Brazil during the past few centuries, has been steadily losing popularity in the country. Indeed, since 1872, the share of Catholics in Brazil has decreased from 99.7 percent of the population to 64.6 percent in 2010. Conversely, Neo-Pentecostal Protestantism, known as Evangelicalism, is rapidly gaining traction, with 22.2 percent of the population falling under this religious denomination as of 2010 (IBGE Census, 1872-2010). Indeed, the surge in popularity of Neo-Pentecostal churches has been more pronounced in the peripheries of large metropolitan areas and in the North and Central-West macroregions of the country (Alves et al, 2017), areas marked by the failure of institutions and land conflicts.

This religious transition has been shown to be associated with the economic circumstances of the country, with hardship playing an especially important role in the expansion of Neo-Pentecostalism. For instance, Costa et al (2022) find that trade shocks and subsequent economic downturns are associated with increased conversions to Neo-Pentecostal denominations.

This change in citizens' religious beliefs also has important interactions with the political scenario in the country. Corbi and Sanches (2021) show that the opening of new Neo-Pentecostal churches in an area is associated with increased vote shares for candidates connected to the religion, but the same is not true for the opening of new Catholic churches. Similarly, Costa et al (2022)'s findings point to Neo-Pentecostal conversions being linked to a rise in vote shares for candidates related to these churches. Evangelical communities appear to therefore have a comparative advantage in translating an increase in popularity into political influence. Non surprisingly between 1991 and 2018, the number of Evangelicals Parliamentarians ⁸ in the Brazilian Congress increased from 23 to 91 (Valle, 2018).

Since these Neo-Pentecostal denominations are, on average, more conservative than their

⁸Parliamentarians that are members of the Evangelical Parliamentary Front (FPE), a Neo-Pentecostal group in the Brazilian Congress

Catholic counterparts Costa et al (2022)⁹, the Protestant transition could be expected to importantly influence the provision of public health services. This might be particularly relevant in the case of reproductive health, as it is a prominent topic in the Neo-Pentecostal agenda. Indeed, Costa et al (2022) find that protestant church affiliated candidates are also more likely to create religious-sensitive proposals in topics such as women's reproductive health¹⁰.

In the past years, the public debate in Brazil has therefore been influenced by fundamentalist views on reproductive health policies. Opposition to such policies has become increasingly common, exemplified by the organized lobbying against sexual education in schools, menstrual hygiene programs, and against the exceptional cases in which abortion is allowed by law.

3.2 Brazil's Healthcare Sector

3.2.1 Municipalities' role in the Healthcare Sector

Created in 1989, the Brazilian Unified Health System (SUS) is one of the largest universal and free healthcare systems in the world. Under this framework, federal, state and local governments are expected to act in a decentralized but integrated manner, leading all three government levels to play a significant part in the provision of healthcare services in the country.

At the National level, the organ responsible for the SUS is the Ministry of Health. While not taking part in the actual implementation of the SUS, the Union is tasked with regulatory and planning activities, such as formulating the National Health Strategy and various policies. Through the National Health Fund, the Ministry of Health transfers resources to Municipalities and State funds, which are responsible for the actual provision of health services. Traditionally, this government level contributes with approximately half of the total funding of the system, leading the National government to be the main financing source of the SUS. Managing and monitoring the funds that go into the system is also an important aspect of the

⁹Based on data from The Pew Research Center (2006); Neo-Pentecostals are more opposed to Same-sex marriage, Alcohol, Divorce and Abortion than other Christians.

¹⁰Costa et al (2022) categorized proposals as religious-sensitive if they contained keywords such as "family, gender, same-sex, homosexual, abortion, rape, stem cells, sexual, etc."

Federal government's role in the Unified Health System ¹¹.

While acting as an Implementing Partner for the National Health strategy outlined by the Federal Government, States and Municipalities are also responsible for the formulation and implementation of health policies in their own territories. They implement these activities through the State and Municipal Health Secretariats, respectively, and finance them using their own resources and transfers from the Federal level. Since 2004, the National government's participation in financing the SUS has been shrinking ¹², with Municipalities increasing their share of financial participation (Servo et al, 2020).

3.2.2 Women's Health in the Country

In Brazil, Cesarean section (c-section) utilization is much higher than what is recommended by the WHO, not being limited to occasions in which the delivery might cause damages to the woman or the newborn. The utilization of this delivery method has been growing significantly, with estimates from the 1970s indicating that it was used on only 15 percent of pregnancies, a figure in high contrast to the latest estimates in 2009, which pointed to its usage in 50.1 percent of cases, with negative implications for the health of late pre-term newborns and for women (do Carmo Leal et al, 2012; with data from SINASC).

The c-section rate in Brazil is associated with women with higher socioeconomic status, education and better prenatal care. It is also influenced by health inputs, being more common in private than in public hospitals (do Carmo Leal et al, 2012) and in hospitals with a high proportion of medical students compared to nursing students (Pádua et al, 2010).

In spite of the regional and socio-economic disparities in access, with women in the North macroregion and less educated subjects being less covered by the services, overall prenatal care coverage in Brazil is high. However, the timing of these visits and the completeness

¹¹Gov.br: <https://www.gov.br/saude/pt-br/assuntos/saude-de-a-a-z/s/sus/responsabilidades-dos-entes-que-compoem-o-sus>

¹²The National Government's participation has decreased from 49 to 42 percent during the 2004-2019 period, while Municipalities' share of SUS financing has increased from 24 to 31 percent in the same timeframe (Servo et al, 2020).

of the medical protocols is still sub-optimal ¹³, with only 75.8 percent of women having an appointment before the 16th gestational week and less than 70 percent of women receiving information on breastfeeding and on how to detect the onset of labor, as well as signs of a risky pregnancy (Viellas et al, 2014).

There is a high prevalence of young mothers in the country, aggravated by a lack of widespread reproductive health education¹⁴ and by the social acceptance of sexual relationships between underaged girls and adults. While teenage pregnancies are under-reported, estimates from 2018 suggest that 15 percent of all newborns were the product of underaged pregnancies (IBGE, 2018) ¹⁵.

Overall, it appears a lot could be done for women and girls' health in terms of increasing access to education on reproductive and sexual health, family planning and to preventative and prenatal care.

4 Empirical Strategy

This analysis uses a regression discontinuity design that is similar to that in Brollo and Troiano (2016). A candidate's affiliation to a party with a large share of members participating in the Evangelical Front is used as an indicator of their attitude towards reproductive health.

Comparing municipalities that have a Mayor in a Party with strong religious links to those that do not will not lead to causal estimates, since municipalities that vote for apparently conservative Mayors are inherently different from those that do not. To avoid confounding my estimates with the initial differences in potential outcomes, I use the RD design through close elections. I thereby compare the outcomes in municipalities in which none of the candidates

¹³This could have important implications for the early diagnosis of microcephaly and congenital ZIKV syndrome in children. The early diagnosis of these diseases, which experienced a rapid rise between 2015-2017, depends on the number of prenatal visits and on the intensive use of health inputs such as ultrasounds and serological tests for Zika Virus and Syphilis (Peiter et al, 2020).

¹⁴Such classes are only part of the mandatory educational curriculum in three Brazilian states: <https://www.generonumero.media/reportagens/escolas-educacao-sexual/>

¹⁵Rede a Ponte: https://redeaponte.org/wp-content/uploads/2021/04/A_ponte_P_Bgravidez.pdf

had a significantly large advantage, assuming that potential outcomes are not going to change abruptly when approaching the discontinuity threshold from the right or from the left. The treatment group is defined as municipalities in which the winning candidate is affiliated to a party with strong religious links ¹⁶ in a race in which the second most voted one was not. The running variable is the vote share difference between candidates, with values to the right of the threshold being positive and indicating a party strongly linked to religious groups won the Mayoral elections, and to the left indicating that they lost.

I estimate three different models. First, the correlation between electing a party with strong religious linkages and my outcomes of interest H_i is observed over the whole sample through an OLS model. In this regression model, H_i represent the health outcomes in municipality i , while RP_i is a binary with value equal to one if a Mayor from a "Religious Party" is elected and zero otherwise.

$$H_i = \alpha_0 + \alpha_1 RP_i + \epsilon_i \quad (1)$$

Since the naive OLS regression is biased by the gap in potential outcomes between municipalities that voted for a conservative Mayor and those that did not, I also estimate two different RDD models. The first, referred to by Brollo and Troiano (2021) as the split polynomial model, uses the whole sample. In this RDD specification, a polynomial fit of the vote margin of victory MV_i in a municipality is interacted with RP_i to produce different estimates for each side of the threshold. No additional controls are used since the RDD is expected to account for unobserved municipality characteristics.

$$H_i = \sum_{k=0}^p (\rho_k MV_i^k) + RP_i \sum_{k=0}^p (\pi_k MV_i^k) + \epsilon_{it} \quad (2)$$

The second possible specification for the RDD model, the local linear regression, requires that only data that is closer to the discontinuity is used, ensuring that observations with more similar potential outcomes are used in the comparison. This, however, leads to a trade-off between bias and variance. In order to select the appropriate bandwidth, I therefore rely on

¹⁶More than 20% of the Congress members affiliated to the Party are part of the Evangelical Parliamentary Front

Stata's `rdbwselect` command.

$$H_i = \alpha_0 + \alpha_1 RP_i + \pi_1 MV_i + \pi_2 MV_i RP_i + \epsilon_i \quad (3)$$

5 Results

5.1 Database creation and Descriptive Statistics

For my analysis, I assume that party affiliation will, to some extent, be reflected in the policies implemented by the Mayor. Mayors in parties strongly linked to Neo-Pentecostal interest groups (Evangelical Parliamentary Front) are hypothesized to invest less in women's reproductive health, either because of underlying conservatism or lack of interest in the topic.

I classified parties as high or low "Neo-Pentecostal share in Congress", based on the share of their affiliated Congress Members who are part of the Evangelical Parliamentary Front in 2018¹⁷. A participation rate higher than 20 percent of their elected Congress members in the Neo-Pentecostal group was the criteria to be considered as "High share". Due to the high replacement rates in Brazilian parties, a party that was not represented in the 2018 Congress could have had a different name in 2016. In that case, parties that were later incorporated into a "High share" one, or that had been renamed before 2018 were considered "High share" as well. Parties that did not have any Congress seats in 2018 and that had no known ties to the "High share" ones were classified by looking at the 2015 participation share in the Evangelical Parliamentary Front.

Two main databases are used to perform this analysis. The electoral data was extracted from Brazil's Superior Electoral Court (TSE). It contains information on the electoral outcomes in the 2016 and 2020 Mayoral elections. I used it to retrieve information on the vote share of each Mayor and the second most voted candidate in the elections, which allowed me to calculate the vote share difference between the winner and the runner-up of the elections. Only municipalities in which one of the two highest voted candidates was "High share" and the other "Non-high share" were kept.

¹⁷Figure 1

The second database used consisted of the SINASC (Information System on Live Births), a dataset containing all registered births in the Brazilian municipalities in the year of 2018, the second year of government of a newly elected Mayor. It reports information on prenatal care, c-sections and health status of the newborn. While this data is at individual level originally, it is collapsed to obtain Municipality means, and filtered to keep only those in which a highly religious-linked party was in direct competition with a non-high share one in the 2016 elections.

Partido	Parlamentares Evangélicos (2018)	Total de Parlamentares (eleitos em 2018)	% de Evangélicos no Partido (2015)
PRB	19	30	63,3%
PSL	8	52	15,4%
PR	7	33	21,2%
DEM	5	29	17,2%
PP	5	37	13,5%
PSD	5	34	14,7%
PSDB	5	29	17,2%
PSB	4	32	12,5%
PSC	4	8	50,0%
IMDB	3	34	8,8%
PODE	3	11	27,3%
PDT	2	28	7,1%
PT	2	56	3,6%
SD	2	13	15,4%
Novo	2	8	25,0%
PMN	1	3	33,3%
PRP	1	4	25,0%
PATRI	1	5	20,0%
Avante	1	7	14,3%
PTC	1	2	50,0%
Pros	1	8	12,5%
PHS	1	6	16,7%
PTB	1	10	10,0%

Extracted from Valle (2018)

Balance Test			
Dependent Variable:	High Share Party	Standard Error	Observations
Population	8218.807	19110.04	1,286
Mayor Female	-0.0385618	0.0270449	1,286
North Region	0.0390907	0.0243919	1,286
Northeast Region	-0.0689114	0.0512607	1,286
Center-West Region	0.0525826**	0.0228009	1,286
Southeast Region	-0.0413407	0.0379985	1,286
South Region	0.0332362	0.0255207	1,286

Variables (municipality means):	Conservative Party Mayor =1 Mean	Obs	Conservative Party Mayor =0 Mean	Obs	Difference
Mother Age (Mean)	25.94023	613	25.96904	673	0.0288047 (.0770206)
Father Age (Mean)	31.03555	594	31.29491	648	.2593622* (.1526347)
Has gone to any Prenatal Care Visit (%)	0.9864171	613	0.9863696	673	-.0000475 (.001499)
Has gone to the advised number of Prenatal Care Visits (%)	0.7197771	613	0.7291353	673	.0093582 (.0080837)
Number of Prenatal Care Visits for each woman (mean)	7.999789	613	8.073139	673	0.0733496 (.0612144)
Month of the pregnancy in which started to go to prenatal visits (mean)	2.579576	613	2.539285	673	-.0402908* (.0235754)
Kotelchuck Score (mean)	4.448915	613	4.470637	673	.0217216 (.0307154)
Born in a hospital (%)	0.9768532	613	0.9830997	673	-.0062465 (.0034161)
Delivery was assisted by a doctor (%)	0.9149526	613	0.9295584	673	0.0146058* (.0076589)
C-section delivery (%)	0.5606129	613	0.5733394	673	.0127265 (.0096351)
Induced Labour (%)	0.1390954	613	0.1360463	673	-.0030491 (.0063929)
Health 1 minute after birth (%) - APGAR 1	0.9403751	613	0.9450035	673	0.0046285 (.0022824)**
Health 5 minutes after birth (%) - APGAR 5	0.9884351	613	0.9899077	673	.0014726 (.0008589)*
Premature (%)	0.107552	613	0.1090512	673	0.0014992 (.0021521)
Extremely Premature (%)	0.0052262	613	0.0053173	673	0.0000911 (.0004994)
Microcephaly (%)	0.0000735	613	0.0000948	673	.0000213 (.0000371)
Population	49056.98	613	40773.51	673	-8283.471 (13176.11)
Mayor Female	0.1207178	613	0.1352155	673	.0144977 (.018682)
North Region	0.1141925	613	0.089153	673	-.0250394 (.0168289)
Northeast Region	0.3491028	613	0.3774146	673	.0283118 (.0268715)
Center-West Region	0.0978793	613	0.077266	673	-.0206133 (.0157447)
Southeast Region	0.314845	613	0.3551263	673	.0402813 (.0263667)
South Region	0.1239804	613	0.1010401	673	-.0229403 (.0176079)

Figure 1 displays the descriptive statistics of all variables used in the analysis, as well as balance test for selected variables. Overall, the data seems to be balanced with respect to the Mayor affiliation to a religious group-linked Mayor, with the exception of the Municipality

being located in the Center-West Region.

5.2 Empirical Results

p Variable	Prenatal Care														
	Any			Advised Number			Number Visits			Time First Visit			Quality (K Index)		
Specification	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR
High Share Party	0.00005	0.000746	.00291	-0.009	-0.0426**	-0.0233**	-0.0733	-0.3308**	-.1745**	0.0403*	0.1005*	.0517	-0.02172	-0.1767**	-.0901*
SD	0.001	0.003	.00225	0.008	0.0191	0.012	0.0612	0.144687	.0903	0.02357	0.0556	.0356	0.03071	0.07285	.0549
Observations	1286	1286	603	1286	1286	562	1286	1286	562	1286	1286	562	1286	1286	506
Optimal h			12			11			11			11			10

Health Inputs															
Variable	Born Hospital						Delivery Practices								
	Assist Doctor			C-section			Induced Labour								
Specification	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR
High Share Party	-0.00624*	-0.0089	-.00519	-0.0146*	-0.0048	-.0127	-0.01272	-0.0081	-.0054	0.003	-0.0106	.0080			
	0.0034	0.0081	.00431	0.0076	0.0182	.0092	0.0096	0.0228	.0121	0.0063	0.0151	.0082			
Observations	1286	1286	682	1286	1286	894	1286	1286	830	1286	1286	830			
Optimal h			14			21			18			18			

Dep Variable	Newborn Health Status														
	APGAR 1			APGAR 5			Premature			Very Premature			Microcephaly		
Specification	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR	OLS	SP	LLR
High Share Party	-0.00462**	-0.0087	-.00613**	-0.00147	-.00476**	-.00209**	-0.00149	-0.0045	-.00269	-0.00009	0.0007	-.00009	-0.00002	0.00021**	0.0000773**
SD	0.00228	0.00543	.003	0.0008	0.002	.0010	0.0021	0.0051	.0027	0.0005	0.0012	.00076	0.00003	0.00008	0.000037
Observations	1286	1286	866	1286	1286	936	1286	1286	866	1286	1286	682	1286	1286	730
Optimal h			20			23			20			14			15

The first set of regressions in Figure 2 relates to prenatal care. Overall, municipalities in which the Mayor's party shares ties with Neo-Pentecostal groups appear to be less effective in getting women to attend the suggested amount of prenatal care screenings¹⁸ and to avoid delaying the first visit. The two RDD design specifications indicate that, in such municipalities, the probability that women attend at least six screening sessions is reduced by 0.02-0.04, significant at the 5% level. Similarly, having a conservative Mayor reduces the average number of visits by 0.17-0.33 and delays the average date of first visit by 3 days¹⁹. As a consequence, the adequacy of the prenatal care system²⁰ is lower in these municipalities (with a 0.09 to 0.17 decrease in the Kotelchuck Index).

¹⁸At least six visits are recommended

¹⁹10 percent of a month

²⁰Which combines information on the timeliness and number of prenatal visits

Likely due to nearly all women in the country having had at least one appointment ²¹, the share of women having had any prenatal appointments does not appear to be affected by the Mayor. The second set of regressions in Figure 2 indicates that neither health inputs (such as hospital delivery and the presence of a doctor), nor the utilization of different protocols such as labour induction or c-sections are affected by the Mayor's Conservatism.

With the exception of premature status, for which the coefficients are not statistically significant, findings indicate that newborn health is negatively affected by the election of Mayors from parties tied to religion. Indeed, the average probability that a baby born in the municipality is in good health in the first and fifth minute of life decreases by 0.006 and 0.002-0.004, respectively. Moreover, the average probability of being affected by Microcephaly decreases by 0.00007-0.00021, with a 5% significance level.

6 Discussion

In spite of the clear connections between the surge in popularity of Neo-Pentecostal denominations, their ever-growing participation in politics, and the newfound influence of religious agenda in public health matters, evaluating the extent to which this has impacted reproductive health policies and outcomes remains a daunting task. First, the direct participation in politics of religious leaderships is often not easily tracked. Second, churches' sphere of influence might extend beyond those officially involved with it. I attempt to circumvent these issues by looking Mayors affiliation to parties in which Neo-Pentecostal agenda is strongly present.

I find that the election of these types of Mayors is associated with worse prenatal care adequacy (in both number and timing of screening visits) and slightly worse neonatal health. Albeit small, this evidence suggests that, if tracking of Neo-Pentecostal influence were more precise, adverse impacts on women and neonatal health could probably be much more pronounced. Further research could therefore provide a better understanding of the consequences of the Evangelical transition on reproductive health by providing more insight on the mecha-

²¹ Viellas et al (2014) find that 98.7% of pregnant women in Brazil had at least one pre-natal care visit at some point during their pregnancy

nisms behind it, and better identification of political actors' religious denominations.

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