# Health Outcomes and Cash Transfers: Evidence from Progresa in Urban Mexico

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#### Abstract

This paper studies the impact of Progresa program on urban areas and children's health anthropometric measures in Mexico. Using a differences-in-differences design by a locality's first year of enrollment and the children's age at first exposure to treatment, I estimate the effects of receiving one additional year of Progresa between 11 and 14 years old. My findings show that treated urban boys gain 1.9 centimeters (cm) more height for each additional year of treatment received. My estimates are slightly larger than previous findings using the rural experimental evaluation. Furthermore, my analysis underscores some unintended effects of the program on adolescent's health such as an increase in the prevalence of overweight and obesity, particularly among girls (between 5 to 14 percentage points more). While these have been observed among the adult population from the rural experiment, my findings suggest urban poor experience these risks at younger ages. Further research is needed to understand the households' incentives to spend their CT on healthy food, given the increasing availability of cheap ultra-processed food in urban areas.

In the late 1990s, Mexico launched Progresa, a conditional cash transfer (CCT) program, widely known for its experimental design and rigorous evaluations. The randomized control trial (RCT) assigned 506 rural localities<sup>1</sup> into treatment and control groups, where eligible families in the treated group received all benefits earlier than eligible control families (Levy, 2006). Using this variation, researchers have found evidence of the positive impacts of Progresa on children's health outcomes, such as height, weight, and health status.<sup>2</sup> Afterwards, Progresa was scaled up nationally under the assumption that its effects could be extrapolated elsewhere. However, given the program was designed to compensate for the opportunity cost of child labor by increasing school attendance in rural areas, these findings might not be the best guide for understanding Progresa's impacts in urban Mexico.

This paper provides novel causal estimates of Progresa's impacts on children's health anthropometric measures after its expansion to urban localities. I exploit the program roll-out in urban localities between 2000 and 2006 derived from a major political change in Mexico. Similar to Duflo (2001)'s work in Indonesia, I use a difference-in-differences design by a locality's first year of treatment and the children's age at first exposure to the intervention. I estimate the effects of receiving one additional year of Progresa during early adolescence on height, weight, and body mass index (BMI).

The data in this paper comes from two main sources. First, I use administrative records on Progresa beneficiaries' enrollment by locality between 1999 and 2012. Second, I use the National Health and Nutrition Survey (ENSA 2000; ENSANUT 2006) to construct a repeated cross-section database by cohort of birth and locality of residence, which I link to Progresa's enrollment data. My sample includes individuals born between 1983 and 1989 who were eligible to receive the education cash transfer between 2000 and 2006.<sup>3</sup> Following previous studies on the effectiveness of nutrition interventions, and given the biological differences observed in the children's growth trajectories, I set 14 years old as the maximum age for an individual to be effectively exposed to Progresa. This way, my treatment corresponds to the number of years an individual was exposed to the intervention before age fourteen.

<sup>&</sup>lt;sup>1</sup>Mexico is composed of 32 states, which are divided into municipalities, and these into localities.

<sup>&</sup>lt;sup>2</sup>See Parker and Todd (2017) for a literature review of Progresa's findings throughout the years.

<sup>&</sup>lt;sup>3</sup>Unfortunately, the ENSA 2000 only has data on health biomarkers for children over 10 years old, which restricts the implementation of a differences-in-differences strategy for younger cohorts.

Using before and after treatment data, my DiD research design models the change in children's health trajectory—as they age—that can be causally attributed to the intervention. To do this, I focus the analysis on urban localities not treated by 2000 (before only 10% of urban localities were treated), and I estimate Progresa's intent-to-treat (ITT) effects for children living in the intervened localities. Then, using the take-up rate of the program observed in 2006, I calculate the local average treatment effect (LATE) among households in the lowest socioeconomic status (SES) tercile and compare my results to the treatment effects found using the RCT sample.

My identification strategy relies on three main assumptions. First, the parallel trend (PT) evolution on average children's health outcomes between localities' treatment adoption groups for staggered settings. Unfortunately, before 2000, Mexico did not have any other disaggregated data on children's health metrics. Instead, I test this assumption using three different proxies for children's health outcomes: locality fertility rates (1990-2012), and locality infant and neonatal mortality rates (1998-2012). I implement an event study analysis (Callaway and Sant'Anna, 2021), where I do not find any pre-trends on fertility rates. Moreover, consistent with Barham (2011), I find neither significant effects of Progresa on infant mortality in urban areas nor on neonatal mortality rates. A second assumption refers to no anticipatory effects. Given my period of interest, my design exploits the program roll-out derived from a major political change in Mexico, which is very unlikely to have been anticipated. Still, if the time of treatment is correlated with a locality's characteristics, my estimates would be biased if these characteristics are also affecting my main outcomes. Using multiple administrative data sources, I show that a locality's roll-out year is unrelated to geographic, demographic, and socioeconomic variables (this is not true for rural areas).<sup>4</sup> Finally, a third assumption is about exclusion.

I find that receiving Progresa before 14 years old significantly increases urban children's height. My results show that, per year of treatment, boys gain 0.38 centimeters (cm) more height than their counterparts who did not receive the intervention by age fourteen. This corresponds to a 1.3% increase in their height after receiving five years of treatment, reaching

<sup>&</sup>lt;sup>4</sup>From government documents, it is unclear the selection criteria for new entering localities –other than emphasizing marginality and adjacency to localities already enrolled (Progresa, 2000).

up to a 2.1% increase for boys with low SES. In the case of girls, consistent with their growth period concluding earlier, I find positive but imprecise effects on height (0.16 cm per year of treatment). A rough translation of these intention-to-treat effects into local effects on the treated implies that receiving Progresa for one year during early adolescence (11 to 14 years old) increased boys' height between 1.9 to 2.3 cm, and 1 cm for girls.

Further, I find positive and significant effects on weight for both sexes, an effect consistently larger for children in the lowest SES tercile. Urban children receiving Progresa before age fourteen gain around 0.6 kilograms (kg) more weight per year of treatment. These ITT effects represent an average local effect on the treated between of 3.3 kg more weight per one more year of exposure to treatment. Nonetheless, the latter increases do not necessarily imply a positive effect of Progresa on children's health, as more weight could be correlated with higher rates of overweight and obesity. For example, recent literature has emphasized a higher risk of a simultaneous manifestation of both undernutrition and overweight and obesity—also known as the double burden of malnutrition—among the urban poorest in low and middle-income countries (Popkin et al., 2020).

To deepen these dynamics, I perform the analysis using BMI (kg/m²), and its standardized weight categories (i.e. underweight, overweight, obese). Two main results arise from this analysis. First, as expected, I find positive and significant effects of the intervention on children's BMI, though smaller and more imprecise for boys.<sup>5</sup> Second, while some of these weight gains are explained by a small decrease in underweight prevalence (not statistically significant), the share of wasted children is relatively small in my sample. Instead, my findings point out a rising concern on the other side of the distribution. On average, the probability of being overweight and obese increases between 0.3 and 2.6 percentage points per year of exposure to treatment. These increments are consistently larger for both sexes in the lowest SES tercile, a 2.9 and 3.7 percentage points increase for boys and girls, respectively. These translate to a LATE of over 10 percentage points increase in overweight and obesity prevalence per one more year of treatment.

<sup>&</sup>lt;sup>5</sup>This is likely explained by the fact that boys' weight gain is accompanied by an increase in their height, as opposed for girls who already stopped growing.

The main contribution of this paper is to provide –to the best of my knowledge– the first causal estimates of Progresa's impact on health anthropometric measures of *urban* children. Shifting from the RCT's 18 months of exposure to treatment, I estimate the effects of receiving one more additional year of treatment over six years during early adolescence. Compared to the RCT effects on children's health, I find larger effects of Progresa on boys' height (twice as large) but very similar in magnitude for girls (Gertler, 2004; Fernald et al., 2009, 2008b). This can be explained by two factors. First, for very disadvantaged populations, previous studies have shown that health and nutrition interventions during adolescence might still have significant effects on children's height (Georgiadis and Penny, 2017; Leroy et al., 2014). Second, given urban areas have fewer food access issues, urban beneficiary households can spend more money on food consumption (MPC=0.80), which translates into a higher total amount of calories consumed (Angelucci and Attanasio, 2009). However, this increase in food consumption seems to have brought some unintended health effects too.

Similarly to Fernald et al. (2008a), I find a positive and detrimental effect of Progresa on body mass index, but at younger ages. My findings show a significant increase in the prevalence of overweight and obesity, particularly worrisome among girls. Given the increasing availability of cheap ultra-processed food and beverages in urban areas (Popkin et al., 2020), it is likely that Progresa's money was used to buy non-healthy food, especially as beneficiary households did not have any restrictions on how to spend the money. This lack of conditionality from cash transfer programs has been discussed to increase BMI and obesity risk (Levasseur, 2019; Forde et al., 2012), posing new challenges to the design of CCT programs. Further research is needed to understand the dynamics between households' incentives to spend their CT on healthy food, and the disproportionate barriers the urban poor face to access healthy food in low and middle-income countries (Vilar-Compte et al., 2021).

The paper proceeds as follows. Section 1 provides some background on Progresa. Section 2 explains the data and presents descriptive statistics of the sample. Section 3 details the identification strategy, and section 4 shows the results. Finally, section 5 compare my findings to those from the RCT and presents some concluding remarks, along with the paper's limitations and future research agenda on the topic.

#### 1 Background

In 1997, following a major economic crisis, the Mexican government launched an innovative strategy to alleviate poverty: Progresa (Schooling, Health and Nutrition Program). It began as a pilot randomized control trial (RCT) in rural Mexico. The RCT selected 506 rural localities from seven states to participate in the program. Localities were randomly assigned into treatment and control groups, where eligible households in the treated group received the benefits 18 months earlier than eligible households in the control group (early 1998 to late 1999). After the RCT concluded, Progresa was expanded to eligible families in highly impoverished rural and semi-urban municipalities in Mexico (Parker and Todd, 2017; Skoufias, 2005).

Later, in 2000, Progresa rapidly escalated to the rest of the country –including urban cities. This expansion followed a big change in Mexico's political environment, when for the first time in over seventy years the incumbent party lost the presidential elections. The program continued functioning and growing through the years, and by 2016 it covered almost one-fourth of the Mexican population. Still, the intensive urban household enrollment peaked between 2001 and 2005, as new localities were incorporated each year (Figure 1). During this period, the program roll-out became less geographically targeted (by marginality classification), and its implementation differed considerably from the former rural-established program.

Originally, eligible families were notified about Progresa after a socioeconomic screening was conducted for all households. After this first screening, eligible families received a home visit to verify their socioeconomic status; and if accepted into Progresa, they remained beneficiaries for the next 3 years, as long as they comply with their co-responsibilities. However, this census became unfeasible in urban localities. Instead, interested families in urban localities needed to attend the register office and respond to the screening questionnaire to corroborate their eligibility. This entrance barrier resulted in self-selection and low take-up rates of the program, as not everyone was aware of their existence (Parker et al., 2005).

Progresa is widely known for its cash transfer (CT) conditional on school attendance. However, its multifactor design enclosed multiple benefits (Levy, 2006). These included a food CT per person, nutritional supplements, and healthcare access for all household members; all conditional on the beneficiary coresponsibilities. As part of the conditionality, all beneficiary members were required to attend their periodic healthcare check-ups (based on their age), and one member per household –usually the mother– needed to participate in the health and nutrition workshops offered at their public clinics (every 2 or 3 months). In addition, beneficiary families with children between 3rd and 12th grade of school received the conditional education CT.<sup>6</sup> While the food cash aid was fixed for all beneficiary households, the education grant's amount varied by children's school grade and sex, aiming to compensate for the opportunity cost of staying in school, with a maximum limit per family. The amounts were modified every year, and all monetary transfers were given directly to the female head of the household.

#### 2 Data

My data comes from two main sources at the locality level. First, I use administrative records on Progresa beneficiaries' enrollment between 1999 and 2012. These include the total number of families enrolled in the program by locality of residence at the end of each fiscal year. A locality—which is the smallest geographic unit in Mexico—served as the target level to scale up Progresa.<sup>7</sup> I identify the year when a locality enters the intervention using the first time I observe at least one beneficiary family in the data. Following the definition of urban settlements, my sample of interest includes localities with more than 5,000 inhabitants during my period of study. Then, I match this with other available sources on geographic,

<sup>&</sup>lt;sup>6</sup>Initially Progresa only covered up to the 9th grade. In 2001, they extended up to the 12th grade, and in 2012 they incorporated the 1st and 2nd grade for the schooling benefits.

<sup>&</sup>lt;sup>7</sup>Mexico is composed of 32 autonomous states, which are divided into municipalities, and these into localities. Localities have changed throughout the years, but Mexican public records allow me to identify movements and changes in the territorial division using their 9-digit id (INEGI, 2022).

demographic, and socioeconomic characteristics to create a locality panel data between 1995 and 2010 (N = 1,166).<sup>8</sup>

Figure 1 shows the aggregate number of new households enrolled in Progresa, and the total number of localities newly incorporated between 1999 and 2011. It also includes the new household enrollment in urban areas (dotted line) with the number of new urban localities incorporated each year. As previously mentioned, we observe that the largest expansion in rural areas peaked in 1999, and later in 2010. However, for urban areas, the largest expansion occurs between 2001 and 2004. During this period, over half of the new households enrolled in the program belonged to urban areas. The only exception is 2003, the year of midterm elections, when new enrollment was temporarily suspended.

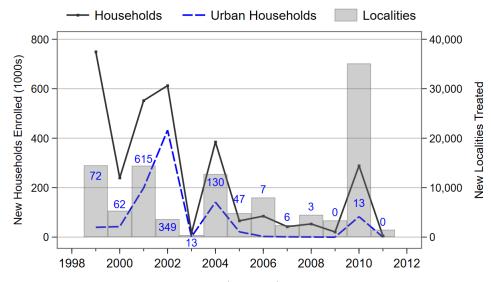


Figure 1: Progresa New Enrollment by Locality and Households, 1999-2011

Notes: Bars represent all new localities treated each year (right axis), where the number in each bar corresponds to the new urban localities treated. Source: Progresa Administrative Records.

Second, I use the National Health (ENSA, for its acronym in Spanish), and the National Health and Nutrition Survey (ENSANUT) to construct a repeated cross-section data set, representative of Mexican children from rural and urban localities. As the predecessor for the ENSANUT, the ENSA 2000 is the first cross-sectional survey in Mexico to include biological health metrics—such as height and weight. These biomarkers were measured directly on-

<sup>&</sup>lt;sup>8</sup>These include cartographic data and Population Censuses from the National Institute of Statistics and Geography (INEGI); marginality indexes from the Population National Counsel (CONAPO); Health Resources data from the Ministry of Health (SS),...

site by trained and standardized nurses, following international guidelines. Weight was measured in kilograms (kg) using a calibrated solar scale, and height in centimeters (cm) using a flexometer. While the ENSANUT measures biomarkers for children over 1 year old, the ENSA 2000 only includes them for adults and children over 10 years old (INSP, 2003).

In addition,<sup>9</sup> the ENSANUT includes data on the socioeconomic and demographic characteristics of households' members, such as indigenous language, literacy, schooling, marital status, employment, self-reported income, and government subsidies. It also incorporates information on houses' economic characteristics; for example, ownership, construction materials (i.e. floor, walls, roof), number of rooms, household assets, sanitary conditions (e.g. drinking water, sewage), and access and utilization of healthcare services. With these, I construct a household's socioeconomic status (SES) index –for each year– using principal component analysis (PCA). When comparing the index with Progresa's take up rate in 2006, all beneficiary households lie in the first SES quartile. Thus, I define as low SES those children from households in the lowest SES quartile for each wave, who are more likely to represent Progresa's eligible population. For comparison across years, I transform this index to percentiles.

By matching both datasets, I construct a repeated cross-section database for individuals by cohort of birth and locality of residence. This includes cohorts of birth between 1983 and 1989, who would have been eligible to receive Progresa's education grant (11 to 17 years old) if their locality were treated in 2000 (with available health data in the first wave). My sample includes 11,710 children residing in 427 urban localities. In the next section, I propose and test an identification strategy that allows me to estimate the intent-to-treat (ITT) effect of receiving Progresa during early adolescence.

### 3 Identification Strategy

My identification strategy exploits the temporal variation in Progresa's roll-out at the locality level and age at first exposure to the program. For each locality  $\ell$ , I observe the year when

<sup>&</sup>lt;sup>9</sup>From now on, I will use ENSANUT to refer to both the ENSA (2000) and ENSANUT surveys.

Table 1: Mean Descriptive Statistics on Urban Households by Socioeconomic Status

	E	ENSANUT 2	2000	E	ENSANUT 2006			
	(1) All	(2) Low SES	(3) High SES	(4) All	(5) Low SES	(6) High SES		
Take-up of Progresa (%)	0.0	0.0	0.0	9.8	26.5	0.0		
Household size	3.98	4.76	3.67	4.28	4.33	4.28		
Health Insurance (prop.)	0.58	0.43	0.65	0.61	0.56	0.64		
With children (prop.)	0.68	0.90	0.60	0.69	0.70	0.69		
Number of children	1.49	2.43	1.14	1.56	1.73	1.48		
With adults over 70y (prop.)	0.13	0.03	0.15	0.15	0.20	0.13		
Head of Household								
Age	45.7	36.4	48.0	48.3	49.5	47.7		
Female (prop.)	0.04	0.04	0.04	0.22	0.29	0.19		
Married (prop.)	0.76	0.88	0.72	0.76	0.69	0.79		
Schooling (years)	7.76	6.68	8.21	7.30	5.28	8.58		
House characteristics								
Rooms per person	0.61	0.36	0.71	0.58	0.51	0.62		
Firm roof (prop.)	0.76	0.54	0.86	0.80	0.51	0.97		
Firm floor (prop.)	0.96	0.88	0.99	0.96	0.89	1.00		
Firm walls (prop.)	0.97	0.93	0.99	0.93	0.84	0.99		
With electricity (prop.)	0.99	0.98	1.00	0.99	0.98	1.00		
With sewage (prop.)	0.94	0.85	0.99	0.96	0.89	1.00		
With water acces (prop.)	0.97	0.92	0.99	0.98	0.94	1.00		
Households $(N)$	27,981	7,243	17,148	29,349	10,758	16,948		

Notes: Sample weighted means. Low SES corresponds to first index tercile; high SES includes second and third index terciles. Sources: ENSANUT.

they receive the program for the first time. I focus the analysis to urban localities receiving Progresa between 2001 and 2005, which I define as the treatment adoption group  $G_{\ell}$ . Note, this excludes 17 localities treated later in time, which are also very different from those treated during my period of interest (see Table 2).

However, not all children exposed to the intervention will be potentially affected. Progress can only affect children's health biomarkers if it occurs during a period of biological growth. For the same treatment adoption group  $G_{\ell}$ , the individual's exposure to treatment will vary by cohort of birth. For each cohort of birth j, I calculate the age at first exposure to Progress based on their locality's treatment adoption group as:  $\tilde{a}_0 = G_{\ell} - j$ . Following Parker and Vogl (2023), I set fourteen as the maximum age of effective exposure to Pro-

gresa.<sup>10</sup> I define my treatment as a continuous variable which accounts the total years of treatment received before (or equal) 14 years old in 2006. Based on this definition, children have to be younger than 14 years old in 2000. Furthermore, given I only observe health outcomes of children over 10 years old at baseline, my analysis focuses on children born between 1987 and 1989, who were 11 to 13 years old in 2000 and 17 to 19 years old in 2006.

Similar to Duflo (2001) analysis in Indonesia, I employ a differences-in-differences (DiD) design with repeated cross-sectional data. In addition to the standard DiD estimation, I include a vector of cohort of birth by time fixed effects that controls for the stage in their growth trajectory. I estimate my model using the following equation:

$$Y_{ij\ell st} = \beta Y ears Treated_{j\ell t} + \alpha_t \times \phi_j + \theta_{a(\ell)} + X'_{i\ell} \Gamma + \eta_s + \varepsilon_{ij\ell st}$$
 (1)

where,  $Y_{ij\ell st}$  is the health outcome for individual i from cohort of birth j in locality  $\ell$  in state s at year t;  $YearsTreated_{j\ell t}$  is the total years of treatment received before 14 years old in 2006;  $\theta_{g(\ell)}$  corresponds to treatment adoption group fixed effects;  $\alpha_t$  are time fixed effects;  $\phi_j$  are cohort of birth fixed effects (1987-1989)  $X_{i\ell}$  is a vector of individual and locality covariates;  $\eta_s$  are state fixed effects; and  $\varepsilon_{i\ell sct}$  is an error term. I cluster my standard errors by locality. Given I cannot observe who was eligible to receive the program before it began, my analysis reflects an intent-to-treat (ITT) approach, rather than a treatment effect on the treated.

My identification strategy requires three main assumptions. First, it relies on the abrupt transition of urban localities into receiving Progresa. As mentioned before, given the most impoverished municipalities received the intervention earlier, the second phase of Progresa's scale-up was less economic and geographically targeted. While the municipality marginality index was the main criteria to incorporate new localities, there are no records of a clear threshold used to decide the incorporation of new urban localities. By definition, urban localities have a lower marginality index than rural areas. Still, if initial poverty determines a locality's year of enrollment, my estimates will be biased. I test this by regressing a locality's

<sup>&</sup>lt;sup>10</sup>This threshold is also illustrated in Figure A.2, where growth stabilizes around fourteen years old for girls, and around fifteen years for boys.

transition year with a vector of pre-treatment demographic, socioeconomic, and geographic characteristics. Table 2 shows the descriptive statistics *pre*—intervention by treatment adoption group, along with the OLS coefficients. Despite the differences in levels, I do not find any evidence suggesting a correlation between the time of treatment and important economic determinants (columns 7 and 8). Another reason for this could be the closeness between urban centers, as proximity within treated localities was also an incorporation criteria to avoid migration between localities.

Table 2: Baseline Characteristics for Urban Localities by Treatment Adoption Group

		Means in 2	2000 by Year	r of First Tre	eatment	
	(1)	(2)	(3)	(4)	(5)	(6)
	2001	2002	2003	2004	2005	After
Marginality (percentile)	59.3	42.5	32.7	37.1	37.4	18.3
Social Lag (percentile)	58.1	43.8	34.8	40.3	42.8	19.7
Population (1000s)	14.3	75.2	9.7	159.1	45.8	409.5
Households (1000s)	3.3	18.2	2.2	36.4	10.7	104.9
Female Head of HH (%)	18.5	18.1	15.9	16.1	14.9	20.8
Children 6-17y (%)	27.8	26.6	26.2	26.2	25.5	21.0
Children not in school (%)	17.3	14.9	14.9	15.4	13.1	15.7
Illiteracy Rate (%)	10.6	7.8	6.6	6.8	5.6	5.7
No Health Insurance (%)	65.4	55.6	52.1	57.0	61.8	54.0
Physicians per 10k	8.8	6.6	3.9	5.7	5.8	9.3
Clinics per 100k	12.2	8.0	12.2	8.2	8.4	2.4
Localities $(N = 1, 166)$	615	349	13	130	47	17

Notes: Sample restricted to urban localities treated after 2000. Sources: CONAPO, INEGI, Progresa Administrative Records, Ministry of Health.

The second assumption refers to the parallel trends (PT) premise. My strategy assumes if treatment had not occurred, the average outcomes for all adoption groups  $g_{\ell}$  would have evolved in parallel.<sup>11</sup> Ideally, I would test for pre-trends in my main outcomes between treatment and control groups. However, before 2000, Mexico did not have any other disaggregated data on children's health biomarkers. Instead, I use three different outcomes as proxies for children's health, which the literature has evidenced in their correlation with health biomarkers. Following Callaway and Sant'Anna (2021), I implement an event-study analysis by year when a locality first receives the program using annual fertility rates, and infant and neonatal mortality rates for urban localities (Figure 3). Consistent with previous

 $<sup>\</sup>overline{{}^{11}\text{For all } t \neq t' \text{ and } g \neq g' \text{:} \quad \mathbb{E}\left[Y_{\ell,t}(0) - Y_{\ell,t'}(0) \mid G_{\ell} = g\right] = \mathbb{E}\left[Y_{\ell,t}(0) - Y_{\ell,t'}(0) \mid G_{\ell} = g'\right]$ 

All Localities ENSANUT Marginality (percentile) Social Lag (percentile) Population (1000s) Households (1000s) Female Head of HH (%) Children 6-17y (%) Children not in school (%) Illiteracy Rate (%) No Health Insurance (%) Physicians per 10k Clinics per 100k -.1 .2 .1

Figure 2: Predicting a Locality's Year of First Treatment (2001-2012)

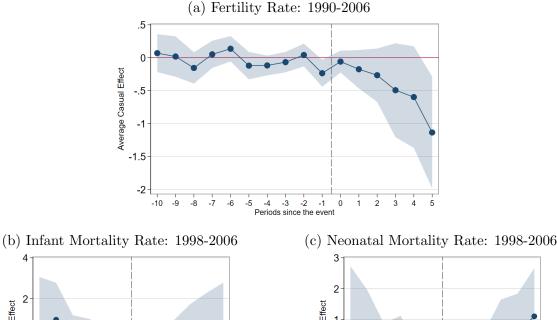
Notes:  $Year_{\ell m} = \alpha + \mathbb{X}'_{\ell}\beta + \eta_m + \varepsilon_{\ell m}$  for locality  $\ell$  in municipality m. OLS coefficients with 95% confidence intervals (intercept omitted). Standard errors clustered by locality, with population weights. Sample restricted to urban localities treated after 2000. Sources: CONAPO, INEGI, Progresa Administrative Records, Ministry of Health, ENSANUT.

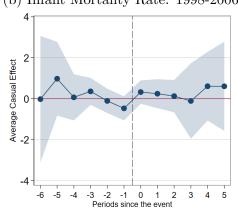
work by Barham (2011), I find no significant effects of Progresa on infant mortality in urban areas, also true for neonatal mortality rates. Regarding fertility rates, I observe a significant decrease after the intervention. However, given my sample was at least ten years old at the time of the intervention, this does not affect my analysis.

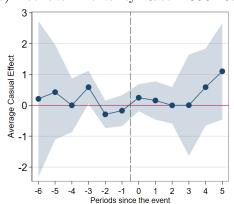
#### 4 Results

My results show the intent-to-treat effects of receiving one more year of Progresa before fourteen years old. I find that Progresa significantly increases height and weight among children in urban areas. My estimates are robust to including individual and locality controls (see Appendix B). Table 3 shows the estimates from my preferred specification controlling for socioeconomic index, marginality index, share of children between 6-17 years old and number of physicians per one thousand population. Treated boys gain 0.42 centimeters (cm) in height per year of exposure to Progresa, which corresponds to 1.5% increase in height over an average period of 5 years. On the other hand, the ITT effect on girls' height is positive, but not statistically significant (0.2 cm). This is consistent with their growth

Figure 3: Event-Study Analysis for Pre-Trends in Health Outcomes







Notes: Callaway and Sant'Anna (2021) estimator with 95% confidence intervals (CI). Infant Mortality Rate equals number of deaths in children under one year old per 1,000 births. Neonatal Mortality Rate equals number of deaths in children under one month old per 1,000 births. Fertility Rate equals total births per 1,000 inhabitants. All rates are annual by urban locality of residence, weighted by population.  $H_0$ :  $\boldsymbol{\beta}^{PRE} = 0$ , p-value: (a) 0.500, (b) 0.883, (c) 0.837. Sources: Natality records, Mortality records, Population Censuses (1990, 1995, 2000, 2005, 2010).

period concluding earlier than boys, approximately one year after their menarche or first menstruation (between 11 and 12 years old).

In addition, I find positive and significant effects on weight for both sexes. Urban children receiving Progresa before age fourteen gain between 0.63 to 0.79 kilograms (kg) more weight per year of treatment. This correspond to an average 7.5% increase in weight for an exposure of 5 years to the intervention among boys, and 9.2% increase in weight for girls. Based on these, I only find significant ITT effects on girls' BMI. Girls gain 0.37 units of BMI (kg/m²), which translates to a 1.8% increase per year of treatment. Though still positive for boys, the coefficient on BMI is more imprecise, as boys' weight gain is also accompanied by an increase in their height (0.6% increase per year of treatment). Nonetheless, these increments

in weight and BMI are only beneficial for wasted and underweight children. Otherwise, more weight could be correlated with higher rates of overweight and obesity.

Table 3: Intent-to-Treat Effects on Anthropometric Measures

	Heigh	t (cm)	Weig	ght (kg)	Ι	BMI
	(1) Boys	(2) Girls	(3) Boys	(4) Girls	(5) Boys	(6) Girls
Years Treated	0.424** (0.179)	0.208 (0.164)	0.626** (0.272)	0.789** (0.317)	0.128 (0.093)	0.369*** (0.120)
SES Index	$0.042 \\ (0.027)$	0.030 $(0.022)$	0.083** (0.039)	0.121*** (0.036)	0.026* (0.015)	0.043*** (0.014)
(SES Index) $^2$	0.0001 $(0.0003)$	-0.0001 (0.0002)	-0.0005 (0.0004)	-0.0011*** (0.0004)	-0.0002 $(0.0002)$	-0.0004*** (0.0002)
Locality Controls	yes	yes	yes	yes	yes	yes
State FE	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes
Mean DV	144.1	145.3	41.7	42.8	19.8	20.0
Observations	2,702	2,960	2,726	2,929	2,697	2,907
$\mathbb{R}^2$	0.765	0.492	0.554	0.361	0.216	0.213

Notes: Sample restricted to birth cohorts from 1987 to 1989 from urban localities treated between 2001-2005. All regressions include sample weights; standard errors clustered by locality. Individual covariates are interacted with a missing-value indicator to control for attrition bias. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10. Sources: ENSANUT, Progresa Administrative Records, CONAPO, INEGI, Ministry of Health.

Following on these, table 4 show the intent-to-treat effects on the probability of being underweight, overweight and obese –each with respect to the normal weight BMI category. The first two columns show my estimates on underweight prevalence for boys and girls, respectively. I do not find any statistically significant effects on these, likely driven by a low prevalence in underweight for this population –on average 4.4%. On the other side, I find positive and statistically significant effects on overweight and obesity, where around one third of my sample is either overweight or obese. On average, receiving one more year of Progresa increases girls' overweight and obesity probability by 2.8 and 1.7 percentage points, respectively. In the case of boys, both estimates are more imprecise; a 1 percentage point increase in obesity prevalence by one more year of receiving treatment.

In addition, I repeat the analysis without any restrictions on the effective age to receive treatment (14 years old), and including all birth cohorts eligible to receive Progresa for at

Table 4: Intent-to-Treat Effects on BMI Categories

	Under	weight	Overv	weight	Obe	esity
	(1) Boys	(2) Girls	(3) Boys	(4) Girls	(5) Boys	(6) Girls
Years Treated	0.0089 (0.0086)	-0.0020 (0.0078)	0.0021 (0.0124)	0.0280** (0.0142)	0.0104* (0.0063)	0.0167*** (0.0057)
SES Index	-0.0021 (0.0016)	-0.0009 (0.0009)	0.0029* (0.0015)	0.0031** (0.0015)	0.0016* (0.0009)	0.0020** (0.0008)
(SES Index) $^2$	0.00003 $(0.00002)$	$0.00001 \\ (0.00001)$	-0.00003 (0.00002)	-0.00003* (0.00002)	-0.00001 (0.00001)	-0.00002* (0.00001)
Locality Controls	yes	yes	yes	yes	yes	yes
State FE	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time} \ \operatorname{FE}$	yes	yes	yes	yes	yes	yes
Mean DV	0.042	0.046	0.278	0.257	0.078	0.052
Observations	1,792	2,022	2,339	2,647	1,872	2,026
$\mathbb{R}^2$	0.053	0.030	0.034	0.040	0.038	0.048

least one year between 2000 and 2006 (i.e. children born between 1983 to 1989). Consistent with the fact that boys continue their growth until 18 years old, I find larger ITT effects of receiving one more year of Progresa's intervention on both boys' height and weight (Table A.6). However, these increments are not accompanied by an increase in overweight and obesity prevalence, as before. On the other hand, though positive, I do not find any statistically significant effect on girls' anthropometric measures. Yet, their probability of being overweight increases to 3.7 percentage points, and up to 2.2 percentage points for obesity prevalence (not statistically significant), by one more year of receiving Progresa (Table A.7).

Further, my estimates evidence a non-linear relationship between socioeconomic status and risk of overweight and obesity. While having a higher SES index is correlated with higher weight and BMI, the effects are smaller for individuals in the farthest part of the SES distribution. This is consistent with recent literature emphasizing how the urban poorest face a higher risk of both undernutrition and overweight —also known as the double burden of malnutrition (Popkin et al., 2020). To deepen on this, I perform a new analysis by

socioeconomic status interacting my treatment with a dummy variable for Low SES using the following equation:

$$Y_{ij\ell st} = \beta_L Y ears Treated_{j\ell t} \times Low_{it} + \beta_H Y ears Treated_{j\ell t} \times High_{it}$$

$$+ \alpha_t \times \phi_j + \theta_{g(\ell)} + X'_{i\ell} \Gamma + \eta_s + \varepsilon_{ij\ell st}$$

$$(2)$$

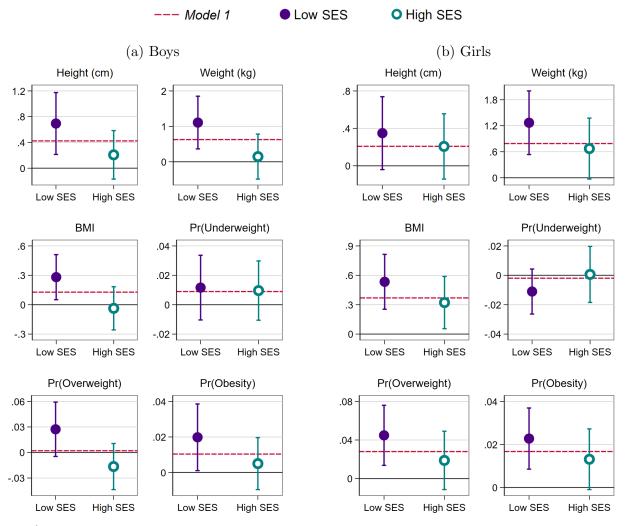
where,  $Low_{it} = 1$  if individual i at year t corresponds to the lowest tercile of the SES index distribution, and  $High_{it} = 1$  if individual i at year t is above the first tercile of the SES index distribution. As before, my main estimates,  $\hat{\beta}_L$  and  $\hat{\beta}_H$ , correspond to the intent-to-treat effect of receiving one more year of treatment –for each income group, respectively.

Figure 4 shows these estimates by sex, comparing them with my results from model 1 (dotted line). First, all estimates for low SES children are statistically different from zero (except for underweight prevalence), while only the coefficient on BMI for high SES girls remains statistically significant. This suggests that most of the effect found before is driven by children in the lowest socioeconomic tercile, which is to be expected as only low income households were eligible to receive Progresa.

On average, per one more year of exposure to Progresa, poor urban boys gain 0.69 cm, and poor urban girls gain 0.35 cm in height. Similarly, urban poor children receiving Progresa gain around 1.2 kilograms (kg) more weight per year of treatment, which also translates to a significant increase in BMI (0.3 and 0.5 units for boys and girls, respectively). However, these BMI increments have different interpretations between boys and girls. On one side, some of the increase in BMI is helping to reduce underweight prevalence among low SES girls (though not statistically significant). On the other side, poor treated girls increase their overweight prevalence by 4.5 percentage points for each year of receiving Progresa treatment, and have 2.3 percentage points more probability of being obese. In the case for poor treated boys, only their prevalence of overweight and obesity increases by 2.7 and 2.0 percentage points, respectively.

Note all these intent-to-treat effects are significantly larger if we calculate the local average treatment effect (LATE) using the observed take-up rate of the program in 2006 among low SES children (26.5%). For example, the LATE for poor urban boys correspond to a 2.6 cm

Figure 4: Intent-to-Treat Effects of Progresa by Sex and Socioeconomic Status



Notes:  $\hat{\beta}_s$  coefficient by SES group with 95% confidence intervals (equation 2). Dotted line shows coefficient from equation 1. Sample restricted to children born between 1987-1989 from urban localities treated between 2001-2005. All regressions include sample weights; standard errors clustered by locality. Individual covariates are interacted with a missing-value indicator to control for attrition bias. Sources: ENSANUT, Progress Administrative Records, CONAPO, INEGI, Ministry of Health.

increase in height for each year of treatment received before fourteen years old, and to 1.3 cm among urban poor girls. Alternatively, I can estimate the LATE with a Two-Step Least Squares (2SLS) approach, using Progresa's take-up rate observed in 2006 as an instrument (Imbens and Angrist, 1994). Table 5 summarizes these local average treatment effects on each outcome by sex, using both methodologies. The LATE estimates are qualitatively similar, though the 2SLS are on the more conservative side.

Table 5: Local Average Treatment Effects by Additional Year of Treatment

	C	DLS	29	SLS
Outcome	(1) Boys	(2) Girls	(3) Boys	(4) Girls
Height (cm)	2.619*** (0.921)	1.317* (0.747)	1.944*** (0.794)	1.113 (0.758)
Weight (kg)	4.177*** (1.426)	4.789*** (1.408)	2.880** (1.187)	4.108*** (1.422)
$\rm BMI~(kg/m^2)$	1.060** (0.442)	2.015*** (0.536)	0.616 $(0.410)$	1.828*** (0.542)
Pr(Underweight)	0.0438 $(0.0423)$	-0.0415 $(0.0294)$	0.0449 $(0.0379)$	-0.0107 $(0.0345)$
Pr(Overweight)	0.1030* (0.0611)	0.1691*** (0.0596)	0.0202 $(0.0554)$	0.1400** (0.0638)
Pr(Obesity)	$0.0747** \\ (0.0358)$	0.0857*** $(0.0272)$	0.0504* (0.0276)	0.0816*** (0.0251)

Notes: Sample restricted to birth cohorts from 1987 to 1989 from urban localities treated between 2001-2005. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10. Sources: ENSANUT, Progresa Administrative Records, CONAPO, INEGI, Ministry of Health.

#### 5 Discussion

Compared to the RCT effects on children's health, I find larger effects of Progresa on boys' height (twice as large) but very similar in magnitude for girls (Gertler, 2004; Fernald et al., 2009, 2008b). While this could be derived from receiving the intervention at different growth periods and the biological differences by sexes, these do not explain the increase in overweight and obesity risk among urban poor children. From these seemingly opposite effects, we need to understand first the differences among urban beneficiaries—before evaluating the net effect of Progresa on urban children's health.

As mentioned before, Progresa was originally designed for rural communities, where the cash transfer amount compensated the opportunity cost of child labor. However, even among low-income population, urban areas have higher schooling rates than rural localities. In this sense, the trade-off between receiving Progresa's CCT and keeping children in school (instead of sending them to work) will likely be lower for urban beneficiary families. This has been evidenced in previous studies analyzing the effects of Progresa on school enrollment using

an urban sample. Behrman et al. (2012) find that –for an average treatment of 18 months–secondary school enrollment (12 to 14 years old) increases between 2.7 and 3 percentage points for girls, and between 1 and 1.3 percentage points for boys. In comparison, for the same age bracket using the RCT sample, the effects of receiving the intervention 18 months earlier are significantly larger, with an average increase of 9 and 6 percentage points in school enrollment among girls and boys, respectively (Schultz, 2004).

This lower trade-off can also be interpreted as a higher marginal benefit per dollar of transfer received among urban households. Despite, urban areas having fewer food access issues, urban beneficiary households spend 80% of their cash transfer on food consumption (Angelucci and Attanasio, 2009), which translates to an increase in the total amount of calories consumed between 12 and 17.5% after 18 months of treatment. In comparison, for this same treatment exposure, treated households in the RCT increase their average total calories consumption by 7 percent (Gertler et al., 2012; Hoddinott and Skoufias, 2004). This increase in food consumption might explain the larger effects of Progresa on urban children's height. However, it brought some unintended health effects too, as beneficiary households did not have any restrictions on how to spend the money.

This detrimental effect of Progresa was previously observed by Fernald et al. (2008a) among adults' BMI from the RCT sample, and has been studied among adult population from other cash transfer programs (Levasseur, 2019; Forde et al., 2012). However, my findings underscore that urban beneficiaries experience these risks at earlier ages. In this sense, despite the so called urban advantage, the urban poorest face disproportionate barriers to access healthy food, such as higher transportation costs to buy food, limited access to fresh produce, and lack of production for self-consumption (Vilar-Compte et al., 2021; Dutra et al., 2018). These, combined with an increase in the availability of cheap ultra-processed food and beverages in urban areas, puts urban adolescents in a higher risk of overweight and obesity. This poses new challenges for the optimal design of conditional cash transfer programs in low and middle income countries, as further research is needed to understand the households' incentives to spend their cash transfer on healthy food.

#### References

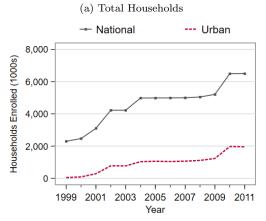
- Angelucci, M. and Attanasio, O. (2009). Oportunidades: program effect on consumption, low participation, and methodological issues. *Economic development and cultural change*, 57(3):479–506.
- Barham, T. (2011). A healthier start: the effect of conditional cash transfers on neonatal and infant mortality in rural mexico. *Journal of Development Economics*, 94(1):74–85.
- Behrman, J. R., Gallardo-Garcia, J., Parker, S. W., Todd, P. E., and Vélez-Grajales, V. (2012). Are conditional cash transfers effective in urban areas? evidence from mexico. *Education economics*, 20(3):233–259.
- Callaway, B. and Sant'Anna, P. H. (2021). Difference-in-differences with multiple time periods. *Journal of econometrics*, 225(2):200–230.
- Duflo, E. (2001). Schooling and labor market consequences of school construction in indonesia: Evidence from an unusual policy experiment. *American economic review*, 91(4):795–813.
- Dutra, L. V., Morais, D. d. C., Santos, R. H. S., Franceschini, S. d. C. C., and Priore, S. E. (2018). Contribution of the production for self-consumption to food availability and food security in households of the rural area of a brazilian city. *Ecology of food and nutrition*, 57(4):282–300.
- Fernald, L. C., Gertler, P. J., and Hou, X. (2008a). Cash component of conditional cash transfer program is associated with higher body mass index and blood pressure in adults. *The Journal of nutrition*, 138(11):2250–2257.
- Fernald, L. C., Gertler, P. J., and Neufeld, L. M. (2008b). Role of cash in conditional cash transfer programmes for child health, growth, and development: an analysis of Mexico's Oportunidades. *The Lancet*, 371(9615):828–837. https://doi.org/10.1016/S0140-6736(08)60382-7.
- Fernald, L. C., Gertler, P. J., and Neufeld, L. M. (2009). 10-year effect of Oportunidades Mexico's conditional cash transfer programme, on child growth, cognition, language, and behaviour: a longitudinal follow-up study. *The Lancet*, 374(9706):1997–2005.
- Forde, I., Chandola, T., Garcia, S., Marmot, M. G., and Attanasio, O. (2012). The impact of cash transfers to poor women in colombia on bmi and obesity: prospective cohort study. *International journal of obesity*, 36(9):1209–1214.
- Georgiadis, A. and Penny, M. E. (2017). Child undernutrition: opportunities beyond the first 1000 days. *The Lancet Public Health*, 2(9):e399.
- Gertler, P. (2004). Do conditional cash transfers improve child health? Evidence from PROGRESAs control randomized experiment. *American Economic Review*, 2(94):336–341.
- Gertler, P. J., Martinez, S. W., and Rubio-Codina, M. (2012). Investing cash transfers to raise long-term living standards. *American Economic Journal: Applied Economics*, 4(1):164–192.
- Hoddinott, J. and Skoufias, E. (2004). The impact of progress on food consumption. *Economic development and cultural change*, 53(1):37–61.
- Imbens, G. W. and Angrist, J. D. (1994). Identification and estimation of local average treatment effects. *Econometrica*, 62(2):467–475.

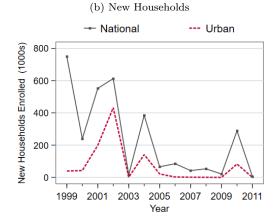
- INEGI (2022). Archivo Historico de Localidades. www.inegi.org.mx/app/geo2/ahl/. Accessed: 2023-01-30.
- INSP (2003). Encuesta Nacional de Salud, 2000. 2. La salud de los adultos, Instituto Nacional de Salud Pública y Secretaría de Salud.
- Leroy, J. L., Ruel, M., Habicht, J.-P., and Frongillo, E. A. (2014). Linear growth deficit continues to accumulate beyond the first 1000 days in low-and middle-income countries: global evidence from 51 national surveys. *The Journal of nutrition*, 144(9):1460–1466.
- Levasseur, P. (2019). Can social programs break the vicious cycle between poverty and obesity? evidence from urban mexico. World Development, 113:143–156.
- Levy, S. (2006). Progress Against Poverty: Sustaining Mexico's Progresa-Oportunidades Program. Brookings Institution Press. https://books.google.com/books?id=hCjsAAAMAAJ.
- Parker, S. W. and Todd, P. (2017). Conditional cash transfers: The case of Progresa/Oportunidades. *Journal of Economic Literature*, 55(3):866–915.
- Parker, S. W., Todd, P. E., and Wolpin, K. I. (2005). Within-family treatment effect estimators: The impact of oportunidades on schooling in mexico.
- Parker, S. W. and Vogl, T. (2023). Do Conditional Cash Transfers Improve Economic Outcomes in the Next Generation? Evidence from Mexico. *The Economic Journal*, page uead049.
- Popkin, B. M., Corvalan, C., and Grummer-Strawn, L. M. (2020). Dynamics of the double burden of malnutrition and the changing nutrition reality. *The Lancet*, 395(10217):65–74.
- Progresa (2000). Selección de localidades susceptibles de recibir los beneficios del Progresa.
- Schultz, P. (2004). School subsidies for the poor: evaluating the mexican progress poverty program. *Journal of Development Economics*, 74(1):199–250. https://doi.org/10.1016/j.jdeveco.2003.12.009.
- Skoufias, E. (2005). PROGRESA and its impacts on the welfare of rural households in Mexico, volume 139. Intl Food Policy Res Inst.
- Vilar-Compte, M., Burrola-Méndez, S., Lozano-Marrufo, A., Ferré-Eguiluz, I., Flores, D., Gaitán-Rossi, P., Teruel, G., and Pérez-Escamilla, R. (2021). Urban poverty and nutrition challenges associated with accessibility to a healthy diet: a global systematic literature review. *International Journal for Equity in Health*, 20:1–19.

## Appendix

#### A Figures

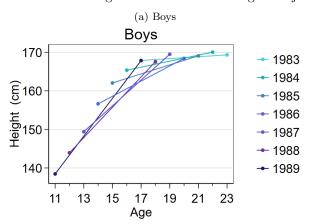
Figure A.1: Progresa New Household Enrollment, 1999-2011

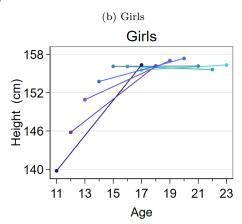




Source: Progresa Administrative Records.

Figure A.2: Children's Height Trajectory by Sex and Cohort of Birth





Notes: Mean height in each wave (2000 and 2006) by cohort of birth with their age (horizontal axis). Sample restricted to children from urban localities treated between 2001-2006. Sources: ENSANUT, Progresa Administrative Records.

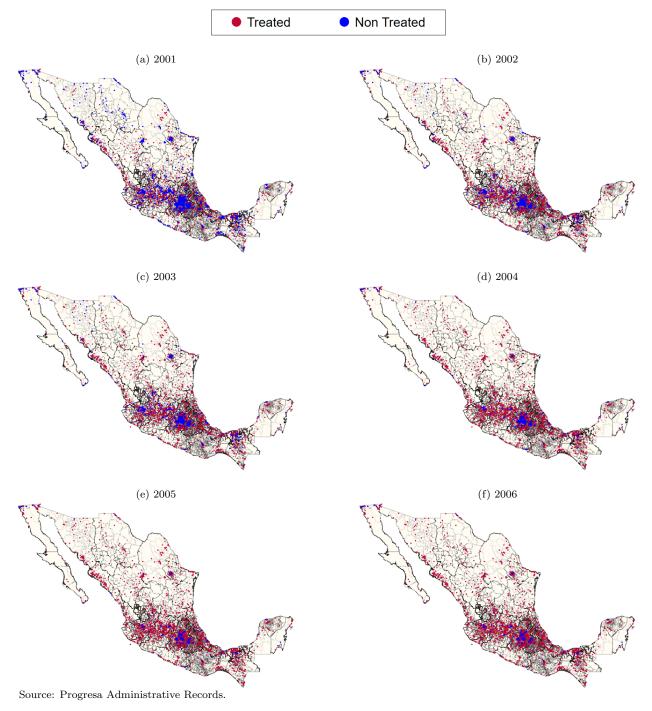


Figure A.3: Progresa's Scaling-Up to Urban Localities by Year, 2001-2006

Newly Treated Treated in t-1 Non Treated (b) 2002 (a) 2001 Newly Treated Newly Treated Treated in t - 1 ● Treated in t - 1 O Non Treated O Non Treated (c) 2003 (d) 2004 Newly Treated Newly Treated O Non Treated O Non Treated (e) 2005 (f) 2006 Newly Treated Newly Treated O Non Treated O Non Treated  $Source:\ Progresa\ Administrative\ Records.$ 

Figure A.4: Progresa's Scaling-Up to New Urban Localities by Year of Entrance, 2001-2006

#### B Tables

Table A.1: Descriptive Statistics on Urban Households by Socioeconomic Status

		ENSANUT 20	000		ENSANUT 20	006
	(1) All	(2) Low SES	(3) High SES	(4) All	(5) Low SES	(6) High SES
Take-up of Progresa (%)	0.0	0.0	0.0	9.8	26.5	0.0
	(0.0)	(0.0)	(0.0)	(29.7)	(44.2)	(0.0)
Household size	3.98	4.76	3.67	4.28	4.33	4.28
	(1.87)	(1.98)	(1.68)	(1.94)	(2.12)	(1.84)
Health Insurance (prop.)	0.58	0.43	0.65	0.61	0.56	0.64
	(0.49)	(0.50)	(0.48)	(0.49)	(0.50)	(0.48)
With children (prop.)	$0.68^{'}$	$0.90^{'}$	0.60	$0.69^{'}$	$0.70^{'}$	$0.69^{'}$
ζ ,	(0.47)	(0.30)	(0.49)	(0.46)	(0.46)	(0.46)
Number of children	1.49	$2.43^{'}$	1.14	$1.56^{'}$	1.73	1.48
	(1.43)	(1.56)	(1.17)	(1.45)	(1.60)	(1.35)
With adults over 70y (prop.)	0.13	0.03	0.15	$0.15^{'}$	0.20	0.13
<i>(</i> 11)	(0.33)	(0.16)	(0.35)	(0.36)	(0.40)	(0.33)
Head of Household						
Age	45.7	36.4	48.0	48.3	49.5	47.7
	(16.1)	(11.8)	(15.9)	(15.3)	(16.8)	(14.5)
Female (prop.)	0.04	0.04	0.04	0.22	0.29	0.19
	(0.19)	(0.21)	(0.19)	(0.42)	(0.45)	(0.39)
Married (prop.)	$0.76^{'}$	0.88	$0.72^{'}$	$0.76^{'}$	$0.69^{'}$	$0.79^{'}$
	(0.43)	(0.33)	(0.45)	(0.43)	(0.46)	(0.40)
Schooling (years)	$7.76^{'}$	$6.68^{'}$	8.21	7.30	$5.28^{'}$	8.58
. ,	(4.42)	(3.60)	(4.64)	(4.46)	(3.86)	(4.34)
House characteristics						
Rooms per person	0.61	0.36	0.71	0.58	0.51	0.62
	(0.42)	(0.18)	(0.45)	(0.37)	(0.35)	(0.37)
Firm roof (prop.)	0.76	0.54	0.86	0.80	0.51	0.97
	(0.42)	(0.50)	(0.34)	(0.40)	(0.50)	(0.17)
Firm floor (prop.)	0.96	0.88	0.99	0.96	0.89	1.00
	(0.20)	(0.33)	(0.08)	(0.20)	(0.32)	(0.00)
Firm walls (prop.)	0.97	0.93	0.99	0.93	0.84	0.99
	(0.16)	(0.25)	(0.07)	(0.26)	(0.37)	(0.11)
With electricity (prop.)	0.99	0.98	1.00	$0.99^{'}$	0.98	1.00
<b>V</b> ( /	(0.09)	(0.14)	(0.04)	(0.09)	(0.15)	(0.00)
With sewage (prop.)	$0.94^{'}$	$0.85^{'}$	$0.99^{'}$	$0.96^{'}$	$0.89^{'}$	1.00
<u>ت ،                                </u>	(0.23)	(0.36)	(0.11)	(0.20)	(0.32)	(0.00)
With water acces (prop.)	$0.97^{'}$	0.92	0.99	0.98	0.94	1.00
/	(0.17)	(0.28)	(0.08)	(0.15)	(0.23)	(0.02)
Households $(N)$	27,981	7,243	17,148	29,349	10,758	16,948

Notes: Sample weighted means with standard deviation in parenthesis below. Low SES corresponds to first index tercile; high SES includes second and third index terciles. Sources: ENSANUT.

Table A.2: Descriptive Statistics on Anthropometric Measures

		Male			Female			
	ENSANUT 2000	ENSANUT 2006	<i>p</i> -value	ENSANUT 2000	ENSANUT 2006	<i>p</i> -value		
Adults								
Height (cm)	166.9	166.9	0.929	154.3	154.2	0.287		
Weight (kg)	77.2	78.2	0.002	67.8	69.2	0.000		
BMI	27.5	27.9	0.000	28.3	29.0	0.000		
Underweight (%)	0.8	0.8	0.963	0.9	0.7	0.098		
Overweight (%)	46.1	46.2	0.875	39.0	38.1	0.250		
Obesity (%)	25.7	28.2	0.012	33.5	38.5	0.000		
Observations	3,684	4,527	8,211	7,858	7,193	15,051		
Cohorts: 1983-1989								
Height (cm)	153.9	168.8	0.000	150.9	156.6	0.000		
Weight (kg)	50.2	69.3	0.000	49.6	59.4	0.000		
BMI	20.8	24.3	0.000	21.5	24.1	0.000		
Underweight (%)	5.7	6.2	0.479	5.8	5.4	0.544		
Overweight (%)	20.5	24.8	0.000	23.8	24.4	0.633		
Obesity (%)	9.2	11.1	0.021	8.7	9.0	0.647		
Observations	3,108	2,414	5,522	3,335	2,853	6,188		

Notes: Sample weighted means. Adults includes individuals between 25 to 49 years old. Sources: ENSANUT.

Table A.3: Descriptive Statistics on Progresa's Beneficiary Households

	ENSAN	UT 2000			ENSANUT	2006	
	R	ural	Ru	ral	Urban		Mean
	Mean	SD	Mean	SD	Mean	SD	Differences
Household size	5.06	(2.23)	4.83	(2.14)	5.28	(2.21)	0.458***
With children (prop.)	0.84	(0.37)	0.81	(0.40)	0.88	(0.33)	0.070***
Number of children	2.68	(1.95)	2.33	(1.78)	2.69	(1.73)	0.356***
Head of Household							
Age	45.5	(15.3)	47.9	(15.5)	45.4	(14.4)	-2.456***
Female (prop.)	0.03	(0.18)	0.20	(0.40)	0.24	(0.43)	0.046***
Married (prop.)	0.86	(0.35)	0.83	(0.37)	0.79	(0.41)	-0.047***
Schooling (years)	4.23	(2.78)	4.03	(3.23)	4.63	(3.47)	0.605***
House characteristics							
Rooms per person	0.39	(0.27)	0.43	(0.26)	0.37	(0.21)	-0.059***
Firm roof (prop.)	0.38	(0.49)	0.44	(0.50)	0.53	(0.50)	0.092***
Firm floor (prop.)	0.61	(0.49)	0.77	(0.42)	0.83	(0.37)	0.058***
Firm walls (prop.)	0.91	(0.28)	0.79	(0.41)	0.87	(0.34)	0.073***
With electricity (prop.)	0.90	(0.30)	0.95	(0.22)	0.98	(0.14)	0.029***
With sewage (prop.)	0.40	(0.49)	0.69	(0.46)	0.88	(0.33)	0.185***
With water acces (prop.)	0.62	(0.49)	0.81	(0.40)	0.95	(0.23)	0.139***
Households $(N)$	4,195		10,257		3,151		13,408

Notes: Sample restricted to urban localities treated after 2000 in ENSANUT. No treated localities on 2003 appear in data. Sources: CONAPO, INEGI, Progresa Administrative Records, Ministry of Health, ENSANUT.

Table A.4: Baseline Characteristics for Urban Localities (ENSANUT Sample)

		Means in 2000	by Year of First	Treatment	
	(1)	(2)	(3)	(4)	(5)
	2001	2002	2004	2005	After
Marginality (percentile)	54.9	34.3	25.6	24.9	4.9
Social Lag (percentile)	53.5	34.0	29.3	29.7	4.9
Population (1000s)	17.2	129.2	341.5	174.1	688.1
Households (1000s)	4.0	31.5	78.7	41.8	176.7
Female Head of HH (%)	17.8	18.6	16.4	16.6	24.3
Children 6-17y (%)	27.5	26.2	25.2	24.3	19.7
Children not in school (%)	16.5	14.6	13.4	11.3	8.8
Illiteracy Rate (%)	9.4	6.8	5.0	4.5	2.4
No Health Insurance (%)	62.3	50.8	50.5	57.6	45.9
Physicians per 10k	9.4	7.4	6.4	10.5	15.0
Clinics per 100k	11.8	6.7	7.6	5.8	2.3
Localities $(N = 427)$	181	175	54	9	10

Notes: Sample restricted to urban localities treated after 2000 in ENSANUT. No treated localities on 2003 appear in data. Sources: CONAPO, INEGI, Progresa Administrative Records, Ministry of Health, ENSANUT.

Table A.5: Descriptive Statistics in 2000 by Progresa's Scale-up Phase and Type of Locality

			Uı	ban					Ru	ral		
	$ \begin{array}{ccc}     \hline                              $				3) r 2006	(4 1999-		(5 2001-		(6) After 2006		
	Mean	$\overline{\mathrm{SD}}$	Mean	$\overline{\mathrm{SD}}$	Mean	$\overline{\mathrm{SD}}$	Mean	$\overline{\mathrm{SD}}$	Mean	$\overline{\mathrm{SD}}$	Mean	$\overline{\mathrm{SD}}$
Mun. Marginality	56.2	21.0	32.5	21.1	5.9	6.9	57.5	24.4	51.7	28.6	55.1	29.4
Population (1000s)	9.7	13.8	50.3	142.0	387.0	482.4	0.40	0.63	0.36	0.84	0.09	0.26
Households (100s)	21.1	34.7	118.2	334.4	991.4	1178.2	0.84	1.36	0.81	1.90	0.19	0.57
Members per house	4.7	0.5	4.3	0.4	4.1	0.7	4.7	0.9	4.7	1.2	4.6	1.3
Pop. Density	3.1	4.2	2.8	7.8	0.1	0.1	5.5	11.1	7.0	16.1	7.6	19.4
Female (%)	51.2	1.3	51.5	1.2	49.5	11.5	50.2	5.3	49.6	7.1	48.7	8.5
Children 6-17y (%)	30.0	2.8	27.2	2.5	21.1	6.8	30.5	7.6	28.3	10.1	27.4	11.7
Illiteracy Rate (%)	19.3	10.5	9.1	5.1	5.6	9.4	22.6	15.0	21.5	18.8	25.3	22.2
Schooling (years)	5.5	1.3	7.2	1.2	8.8	2.2	4.2	1.3	4.4	1.9	4.1	2.0
No Healthcare (%)	80.1	16.3	61.2	17.3	52.6	20.3	86.4	20.4	81.7	24.0	82.6	26.7
Physicians per 100k	43.1	47.6	60.0	71.9	66.1	101.7	21.4	152.5	25.0	533.1	6.9	160.5
Clinics per 100k	10.9	9.2	10.3	10.5	2.3	3.1	18.9	135.6	17.2	220.0	6.5	157.4
Hospitals per million	4.8	21.7	8.6	25.2	2.9	4.2	0.3	16.6	1.9	151.0	0.4	41.1
$Geographic\ Region$												
North (%)	17.3	38.0	18.7	39.0	5.6	23.6	18.7	39.0	24.1	42.8	28.4	45.1
Center (%)	39.8	49.1	53.9	49.9	94.4	23.6	41.2	49.2	43.6	49.6	26.7	44.2
South (%)	42.9	49.7	27.5	44.6	0.0	0.0	40.1	49.0	32.3	46.8	45.0	49.7
$\overline{\text{Localities }(N)}$	134		1,154		18		18,351		26,945		17,699	

Notes: Means and standard deviations by locality. Urban localities have 5,000 inhabitants or more. Municipality marginality index expressed in percentiles, population density refers to mean by municipality. Sources: CONAPO, INEGI, Progresa Administrative Records, Ministry of Health.

Table A.6: Intent-to-Treat Effects on Anthropometric Measures (Cohorts: 1983-1989)

	Heigh	t (cm)	Weigl	ht (kg)	В	SMI
	(1) Boys	(2) Girls	(3) Boys	(4) Girls	(5) Boys	(6) Girls
Years Treated	0.875*** (0.254)	0.216 (0.242)	1.246*** (0.447)	0.279 (0.477)	0.222 $(0.175)$	0.108 (0.180)
SES Index	0.052*** $(0.020)$	0.023 $(0.016)$	$0.057* \\ (0.033)$	0.083*** (0.028)	0.015 $(0.011)$	0.027** (0.010)
(SES Index) $^2$	-0.0001 $(0.0002)$	$0.0000 \\ (0.0002)$	-0.0002 (0.0004)	-0.0007** (0.0003)	-0.0001 (0.0001)	-0.0003** (0.0001)
Locality Controls						
Marginality (percentile)	0.001 $(0.014)$	-0.026** (0.012)	0.021 $(0.019)$	-0.006 $(0.015)$	0.010 $(0.007)$	0.004 $(0.007)$
Children 6-17y (%)	-0.266** (0.118)	-0.151 $(0.109)$	-0.388* (0.205)	-0.263* (0.157)	-0.105 $(0.084)$	-0.056 $(0.067)$
Physicians per 1000s	$0.063 \\ (0.195)$	-0.237 $(0.221)$	0.067 $(0.308)$	-0.170 $(0.232)$	$0.068 \\ (0.105)$	0.024 $(0.123)$
State FE	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time} \ \operatorname{FE}$	yes	yes	yes	yes	yes	yes
Mean DV Observations	154.0 5,254	150.9 5,913	50.3 5,298	49.5 5,823	20.8 5,242	21.5 5,760
$\frac{R^2}{R^2}$	0.678	0.388	0.462	0.268	0.210	0.160

Table A.7: Intent-to-Treat Effects on BMI Categories (Cohorts: 1983-1989)

	Under	weight	Over	weight	Obe	esity
	(1) Boys	(2) Girls	(3) Boys	(4) Girls	(5) Boys	(6) Girls
Years Treated	-0.0006 (0.0127)	0.0105 (0.0118)	0.0240 (0.0184)	0.0367* (0.0190)	0.0157 (0.0107)	0.0219 (0.0144)
SES Index	-0.0009 (0.0010)	-0.0006 $(0.0007)$	$0.0006 \\ (0.0013)$	0.0026** (0.0011)	-0.0000 (0.0008)	$0.0012* \\ (0.0007)$
(SES Index) $^2$	$0.00001 \\ (0.00001)$	$0.00001 \\ (0.00001)$	-0.00000 (0.00001)	-0.00003** (0.00001)	$0.00000 \\ (0.00001)$	-0.00001 (0.00001)
Locality Controls						
Marginality (percentile)	-0.0001 $(0.0005)$	0.0009 $(0.0007)$	0.0007 $(0.0008)$	0.0007 $(0.0007)$	0.0004 $(0.0005)$	0.0010** (0.0005)
Children 6-17y (%)	-0.0087** (0.0038)	-0.0018 $(0.0049)$	-0.0133 $(0.0098)$	0.0011 $(0.0063)$	-0.0092 $(0.0058)$	-0.0070 $(0.0056)$
Physicians per 1000s	-0.0002 $(0.0094)$	0.0053 $(0.0065)$	-0.0023 $(0.0120)$	-0.0070 (0.0113)	0.0094 $(0.0090)$	-0.0140 (0.0088)
State FE	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time} \ \operatorname{FE}$	yes	yes	yes	yes	yes	yes
Mean DV Observations	0.064 3,517	0.055 3,886	0.330 4,977	0.341 5,520	0.095 3,679	0.070 3,964
$\frac{R^2}{R^2}$	0.032	0.039	0.047	0.041	0.058	0.092

Table A.8: Intent-to-Treat Effects on Boys' Height

	Boys' Height (cm)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Years Treated	0.470 (0.400)	0.456 $(0.396)$	0.590 $(0.374)$	0.590* (0.353)	0.745** (0.318)	0.757** (0.313)	0.732** (0.314)	0.733** (0.310)	
Age		1.092** (0.508)							
SES Index (percentile)			0.054*** (0.008)	0.051*** (0.008)	0.051*** (0.008)	0.039 $(0.027)$	0.044*** (0.008)	0.044* (0.026)	
(SES Index) $^2$						0.0001 $(0.0003)$		$0.0000 \\ (0.0003)$	
Mother's Educ $\geq$ 6y							1.408*** (0.418)	1.405*** (0.412)	
Locality Controls									
Marginality (percentile)				-0.018 $(0.013)$	0.038** (0.017)	0.038** (0.017)	0.041** (0.017)	0.041** (0.017)	
Children 6-17y (%)				-0.072 $(0.138)$	-0.460*** (0.154)	-0.459*** (0.154)	-0.454*** (0.153)	-0.454*** (0.153)	
Physicians per 1000s				0.523 $(0.421)$	0.455 $(0.371)$	0.461 $(0.370)$	0.448 $(0.374)$	0.448 $(0.372)$	
State FE	no	no	no	no	yes	yes	yes	yes	
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes	
Mean DV	144.1	144.1	144.1	144.1	144.1	144.1	144.1	144.1	
Observations $R^2$	2,702 $0.743$	2,702 $0.744$	2,702 $0.753$	2,702 $0.755$	2,702 $0.766$	2,702 $0.766$	2,702 $0.768$	2,702 0.768	

Table A.9: Intent-to-Treat Effects on Boys' Standardized Height for Age

	Boys' Height-for-Age $(z ext{-score})$									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Years Treated	0.055 $(0.056)$	0.057 $(0.056)$	0.071 $(0.052)$	0.071 (0.049)	0.090** (0.044)	0.091** (0.043)	0.088** (0.044)	0.087** (0.043)		
Age		-0.141** (0.065)								
SES Index (percentile)			0.007*** (0.001)	0.007*** (0.001)	$0.007*** \\ (0.001)$	$0.006 \\ (0.004)$	0.006*** (0.001)	0.007* $(0.004)$		
(SES Index) $^2$						$0.0000 \\ (0.0000)$		-0.0000 (0.0000)		
Mother's Educ $\geq$ 6y							0.199*** (0.055)	0.201*** (0.054)		
Locality Controls										
Marginality (percentile)				-0.002 $(0.002)$	0.005** (0.002)	0.005** (0.002)	0.006** (0.002)	0.006** (0.002)		
Children 6-17y (%)				-0.019 $(0.020)$	-0.069*** (0.021)	-0.069*** (0.021)	-0.069*** (0.021)	-0.069*** (0.021)		
Physicians per 1000s				0.070 $(0.046)$	0.058 $(0.041)$	0.058 $(0.041)$	0.057 $(0.041)$	0.057 $(0.041)$		
State FE	no	no	no	no	yes	yes	yes	yes		
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes		
Mean DV	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34		
Observations R <sup>2</sup>	2,702 $0.085$	2,702 $0.087$	$2,702 \\ 0.120$	2,702 $0.129$	2,702 $0.168$	2,702 $0.168$	$2,702 \\ 0.175$	$2,702 \\ 0.175$		

Table A.10: Intent-to-Treat Effects on Girls' Height

	Girls' Height (cm)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Years Treated	0.446 (0.284)	0.390 (0.283)	0.478* (0.278)	0.434 (0.269)	0.454* (0.266)	0.448* (0.267)	0.448* (0.264)	0.431 (0.263)	
Age		1.604*** (0.435)							
SES Index (percentile)			0.038*** (0.007)	0.024*** (0.006)	0.023*** (0.006)	0.030 $(0.022)$	0.017*** (0.006)	0.039* (0.021)	
(SES Index) $^2$						-0.0001 $(0.0002)$		-0.0002 $(0.0002)$	
Mother's Educ $\geq$ 6y							1.606*** (0.412)	1.664*** (0.418)	
Locality Controls									
Marginality (percentile)				-0.069*** (0.012)	-0.038*** (0.015)	-0.038*** (0.014)	-0.034** (0.014)	-0.033** (0.014)	
Children 6-17y (%)				0.127 $(0.107)$	-0.109 (0.143)	-0.108 $(0.144)$	-0.109 $(0.139)$	-0.104 $(0.139)$	
Physicians per 1000s				-0.141 $(0.260)$	-0.139 $(0.279)$	-0.135 $(0.279)$	-0.151 $(0.265)$	-0.140 $(0.265)$	
State FE	no	no	no	no	yes	yes	yes	yes	
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes	
Mean DV	145.3	145.3	145.3	145.3	145.3	145.3	145.3	145.3	
Observations $\mathbb{R}^2$	2,960 $0.444$	2,960 0.448	$2,960 \\ 0.456$	$2,960 \\ 0.472$	2,960 $0.493$	2,960 $0.493$	2,960 0.499	2,960 0.499	

Table A.11: Intent-to-Treat Effects on Girls' Standardized Height for Age

	Girls' Height-for-Age $(z ext{-score})$								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Years Treated	0.047 (0.043)	0.049 (0.043)	0.052 $(0.042)$	0.045 (0.041)	0.044 (0.040)	0.043 (0.040)	0.043 (0.040)	0.041 (0.040)	
Age		-0.049 (0.063)							
SES Index (percentile)			0.005*** $(0.001)$	0.003*** (0.001)	0.003*** (0.001)	0.004 $(0.003)$	0.002*** (0.001)	$0.005 \\ (0.003)$	
(SES Index) $^2$						-0.0000 (0.0000)		-0.0000 (0.0000)	
Mother's Educ $\geq$ 6y							0.233*** (0.062)	0.240*** (0.063)	
Locality Controls									
Marginality (percentile)				-0.010*** (0.002)	-0.006** (0.002)	-0.006*** (0.002)	-0.005** (0.002)	-0.005** (0.002)	
Children 6-17y (%)				0.012 $(0.016)$	-0.020 $(0.021)$	-0.020 $(0.022)$	-0.020 $(0.021)$	-0.019 $(0.021)$	
Physicians per 1000s				-0.031 $(0.039)$	-0.027 $(0.042)$	-0.027 $(0.042)$	-0.029 (0.040)	-0.028 $(0.040)$	
State FE	no	no	no	no	yes	yes	yes	yes	
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes	
Mean DV Observations R <sup>2</sup>	-0.31 2,960 0.112	-0.31 2,960 0.112	-0.31 2,960 0.131	-0.31 2,960 0.161	-0.31 2,960 0.191	-0.31 2,960 0.191	-0.31 2,960 0.201	-0.31 2,960 0.201	

Table A.12: Intent-to-Treat Effects on Boys' Weight

	Boys' Weight (kg)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Years Treated	0.976** (0.447)	0.961** (0.439)	1.070** (0.441)	1.077** (0.427)	1.205*** (0.411)	1.170*** (0.413)	1.194*** (0.415)	1.146*** (0.418)	
Age		1.165 $(0.803)$							
SES Index (percentile)			0.044*** (0.011)	0.041*** (0.011)	0.044*** (0.011)	0.078** (0.038)	0.038*** (0.011)	0.083** (0.038)	
(SES Index) $^2$						-0.0004 $(0.0004)$		-0.0005 $(0.0004)$	
Mother's Educ $\geq$ 6y							1.213** (0.539)	1.327** (0.542)	
Locality Controls									
Marginality (percentile)				-0.008 (0.019)	0.038 $(0.025)$	0.038 $(0.025)$	0.041 $(0.025)$	0.041 $(0.025)$	
Children 6-17y (%)				-0.172 $(0.165)$	-0.295 $(0.214)$	-0.296 $(0.214)$	-0.289 $(0.212)$	-0.290 (0.212)	
Physicians per 1000s				0.263 $(0.362)$	0.295 $(0.329)$	0.280 $(0.331)$	0.288 $(0.327)$	0.268 $(0.329)$	
State FE	no	no	no	no	yes	yes	yes	yes	
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes								
Mean DV Observations R <sup>2</sup>	41.7 2,726 0.538	41.7 2,726 0.539	41.7 2,726 0.543	41.7 2,726 0.544	41.7 2,726 0.555	41.7 2,726 0.555	41.7 2,726 0.556	41.7 2,726 0.556	

Table A.13: Intent-to-Treat Effects on Boys' Standardized Weight for Age

			Во	ys' Weight-	for-Age $(z-$	score)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.066 $(0.054)$	0.068 $(0.055)$	0.077 $(0.054)$	0.079 $(0.050)$	0.096** (0.048)	0.092* (0.048)	0.094* (0.048)	0.089* (0.048)
Age		-0.135* (0.074)						
SES Index (percentile)			0.005*** (0.001)	0.005*** $(0.001)$	0.005*** (0.001)	0.009** (0.004)	0.004*** (0.001)	0.009** (0.004)
(SES Index) $^2$						-0.0000 (0.0000)		-0.0001 (0.0000)
Mother's Educ $\geq$ 6y							0.143*** (0.054)	0.156*** (0.054)
Locality Controls								
Marginality (percentile)				-0.000 (0.002)	0.005* (0.003)	$0.005* \\ (0.003)$	0.005** (0.003)	0.005** (0.003)
Children 6-17y (%)				-0.033* (0.018)	-0.047** (0.023)	-0.047** (0.023)	-0.046** (0.023)	-0.046** (0.023)
Physicians per 1000s				0.046 $(0.033)$	0.039 $(0.029)$	0.037 $(0.029)$	0.038 $(0.029)$	0.036 $(0.029)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Observations $\mathbb{R}^2$	$2,700 \\ 0.024$	2,700 0.026	$2,700 \\ 0.036$	2,700 0.041	2,700 0.067	2,700 0.068	2,700 0.070	2,700 0.071

Table A.14: Intent-to-Treat Effects on Girls' Weight

				Girls'	Weight (kg	g)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	-0.005 (0.579)	-0.069 (0.577)	0.020 $(0.582)$	0.009 (0.578)	0.070 $(0.571)$	-0.018 (0.574)	0.065 $(0.571)$	-0.035 (0.574)
Age		1.533** (0.676)						
SES Index (percentile)			0.037*** (0.014)	0.028** (0.014)	$0.026* \\ (0.014)$	0.129*** $(0.037)$	0.021 $(0.014)$	0.136*** (0.036)
(SES Index) $^2$						-0.0012*** (0.0004)		-0.0013*** (0.0004)
Mother's Educ $\geq$ 6y							1.216 $(0.797)$	1.517* $(0.773)$
Locality Controls								
Marginality (percentile)				-0.038** (0.019)	$0.000 \\ (0.025)$	$0.005 \\ (0.025)$	0.003 $(0.024)$	0.010 $(0.024)$
Children 6-17y (%)				-0.007 $(0.209)$	-0.349 $(0.279)$	-0.328 $(0.281)$	-0.350 $(0.279)$	-0.327 $(0.280)$
Physicians per 1000s				0.491 $(0.351)$	0.518 $(0.397)$	0.576 $(0.400)$	$0.508 \\ (0.388)$	0.572 $(0.388)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes							
Mean DV Observations R <sup>2</sup>	42.8 2,929 0.332	42.8 2,929 0.334	42.8 2,929 0.337	42.8 2,929 0.340	42.8 2,929 0.354	42.8 2,929 0.358	42.8 2,929 0.356	42.8 2,929 0.360

Table A.15: Intent-to-Treat Effects on Girls' Standardized Weight for Age

			(	Girls' Wei	ght-for-Age	(z-score)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.046 (0.043)	0.046 (0.043)	0.050 $(0.043)$	0.046 (0.043)	0.052 (0.041)	0.044 (0.041)	0.051 (0.041)	0.043 (0.041)
Age		-0.007 $(0.062)$						
SES Index (percentile)			0.004*** (0.001)	0.003** (0.001)	0.003** (0.001)	0.013*** $(0.003)$	0.003** (0.001)	0.014*** $(0.003)$
(SES Index) $^2$						-0.0001*** (0.0000)		-0.0001*** (0.0000)
Mother's Educ $\geq$ 6y							$0.059 \\ (0.069)$	0.089 $(0.067)$
Locality Controls								
Marginality (percentile)				-0.003* (0.002)	0.001 $(0.002)$	0.002 $(0.002)$	0.001 $(0.002)$	0.002 $(0.002)$
Children 6-17y (%)				-0.027 $(0.017)$	-0.063*** (0.022)	-0.061*** (0.023)	-0.063*** (0.022)	-0.061*** (0.022)
Physicians per 1000s				$0.035 \\ (0.033)$	$0.040 \\ (0.036)$	0.045 $(0.037)$	0.039 $(0.036)$	$0.045 \\ (0.036)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Observations $R^2$	2,910 $0.022$	2,910 $0.022$	2,910 $0.031$	2,910 $0.041$	2,910 $0.059$	$2,910 \\ 0.064$	2,910 $0.060$	$2,910 \\ 0.065$

Table A.16: Intent-to-Treat Effects on Boys' BMI

				Boy	s' BMI			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.205 $(0.152)$	0.202 (0.150)	0.216 (0.152)	0.221 (0.149)	0.247 $(0.151)$	0.227 (0.148)	0.246 $(0.152)$	0.224 (0.149)
Age		0.240 $(0.264)$						
SES Index (percentile)			$0.005 \\ (0.004)$	$0.005 \\ (0.004)$	$0.005 \\ (0.004)$	0.025* $(0.015)$	$0.005 \\ (0.004)$	0.026* (0.015)
(SES Index) $^2$						-0.0002 $(0.0002)$		-0.0002 $(0.0002)$
Mother's Educ $\geq$ 6y							0.093 $(0.179)$	0.147 $(0.180)$
Locality Controls								
Marginality (percentile)				0.002 $(0.006)$	$0.008 \\ (0.008)$	$0.008 \\ (0.008)$	$0.008 \\ (0.008)$	$0.008 \\ (0.008)$
Children 6-17y (%)				-0.068 $(0.055)$	-0.038 $(0.076)$	-0.039 $(0.076)$	-0.038 $(0.076)$	-0.038 $(0.076)$
Physicians per 1000s				0.024 $(0.111)$	0.030 $(0.120)$	0.021 $(0.119)$	0.029 $(0.120)$	0.020 $(0.119)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
Observations $\mathbb{R}^2$	2,697 $0.199$	2,697 $0.199$	2,697 $0.200$	2,697 $0.200$	2,697 $0.215$	2,697 $0.216$	2,697 $0.215$	2,697 0.216

Table A.17: Intent-to-Treat Effects on Boys' Standardized BMI for Age

			Во	oys' BMI-fo	or-Age ( $z$ -s	core)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.031 $(0.051)$	0.032 $(0.052)$	0.033 $(0.051)$	0.037 (0.049)	0.048 (0.049)	0.044 (0.048)	0.048 (0.050)	0.043 (0.048)
Age		-0.079 $(0.070)$						
SES Index (percentile)			$0.001 \\ (0.001)$	$0.001 \\ (0.001)$	$0.001 \\ (0.001)$	$0.006 \\ (0.005)$	$0.001 \\ (0.001)$	$0.006 \\ (0.005)$
(SES Index) $^2$						-0.0001 (0.0001)		-0.0001 (0.0001)
Mother's Educ $\geq$ 6y							0.026 $(0.053)$	0.038 $(0.052)$
Locality Controls								
Marginality (percentile)				0.002 $(0.002)$	0.004 $(0.002)$	0.004 $(0.002)$	0.004 $(0.002)$	0.004 $(0.002)$
Children 6-17y (%)				-0.029* (0.016)	-0.012 $(0.021)$	-0.013 $(0.021)$	-0.012 $(0.021)$	-0.012 $(0.021)$
Physicians per 1000s				0.010 $(0.037)$	0.010 $(0.040)$	$0.008 \\ (0.039)$	0.010 $(0.040)$	0.008 $(0.039)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
Observations R <sup>2</sup>	2,697 $0.014$	2,697 $0.014$	2,697 $0.014$	2,697 $0.016$	2,697 $0.035$	2,697 $0.036$	2,697 $0.035$	2,697 $0.036$

Table A.18: Intent-to-Treat Effects on Girls' BMI

				C	Girls' BMI			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	-0.009 (0.213)	-0.018 (0.213)	-0.003 (0.215)	-0.004 (0.210)	0.027 (0.206)	-0.006 (0.208)	0.027 (0.206)	-0.006 (0.208)
Age		$0.272 \\ (0.249)$						
SES Index (percentile)			$0.006 \\ (0.005)$	$0.005 \\ (0.005)$	$0.005 \\ (0.005)$	0.047*** $(0.014)$	$0.006 \\ (0.005)$	$0.047^{***}$ $(0.014)$
(SES Index) $^2$						-0.0005*** (0.0002)		-0.0005*** (0.0002)
Mother's Educ $\geq$ 6y							-0.099 (0.304)	0.014 $(0.296)$
Locality Controls								
Marginality (percentile)				0.003 $(0.007)$	0.014 $(0.009)$	0.017* (0.009)	0.014 $(0.009)$	$0.017* \\ (0.009)$
Children 6-17y (%)				-0.079 $(0.071)$	-0.168* (0.101)	-0.159 $(0.103)$	-0.168* (0.101)	-0.159 $(0.103)$
Physicians per 1000s				0.252** (0.106)	0.282** (0.119)	0.304*** $(0.117)$	0.283** (0.119)	0.304*** $(0.117)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Observations $R^2$	2,907 $0.185$	2,907 $0.186$	2,907 $0.186$	2,907 $0.189$	2,907 $0.202$	2,907 $0.207$	2,907 $0.202$	2,907 0.207

Table A.19: Intent-to-Treat Effects on Girls' Standardized BMI for Age  $\,$ 

				Girls' BM	II-for-Age (	z-score)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.041 (0.039)	0.041 (0.039)	0.042 (0.040)	0.041 (0.039)	0.047 $(0.039)$	0.040 (0.038)	0.047 (0.038)	0.040 (0.038)
Age		$0.001 \\ (0.057)$						
SES Index (percentile)			$0.001 \\ (0.001)$	$0.001 \\ (0.001)$	$0.001 \\ (0.001)$	0.011*** $(0.003)$	0.002 $(0.001)$	0.010*** $(0.003)$
(SES Index) $^2$						-0.0001*** (0.0000)		-0.0001*** (0.0000)
Mother's Educ $\geq$ 6y							-0.051 $(0.060)$	-0.027 $(0.060)$
Locality Controls								
Marginality (percentile)				0.002 $(0.002)$	0.004* (0.002)	0.004* $(0.002)$	0.003 $(0.002)$	0.004* (0.002)
Children 6-17y (%)				-0.033** (0.014)	-0.049** (0.019)	-0.047** (0.020)	-0.049** (0.019)	-0.047** (0.020)
Physicians per 1000s				$0.047^*$ $(0.025)$	0.052* $(0.027)$	0.057** (0.026)	0.052** (0.027)	0.057** (0.026)
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
Observations $\mathbb{R}^2$	2,907 0.016	2,907 0.016	2,907 $0.017$	2,907 $0.022$	2,907 $0.038$	2,907 $0.044$	2,907 $0.039$	2,907 0.044

Table A.20: Intent-to-Treat Effects on Boys' Underweight Prevalence

				Boys' U	nderweight	;		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0089 (0.0203)	0.0091 $(0.0203)$	0.0095 (0.0200)	0.0089 (0.0197)	0.0032 $(0.0205)$	0.0053 $(0.0195)$	0.0029 $(0.0207)$	0.0053 (0.0196)
Age		-0.0132 $(0.0165)$						
SES Index (percentile)			0.0002 $(0.0004)$	0.0002 $(0.0004)$	0.0002 $(0.0004)$	-0.0021 (0.0016)	$0.0001 \\ (0.0004)$	-0.0021 (0.0016)
(SES Index) $^2$						0.00003 $(0.00002)$		0.00003 $(0.00002)$
Mother's Educ $\geq$ 6y							$0.0060 \\ (0.0219)$	-0.0002 $(0.0196)$
Locality Controls								
Marginality (percentile)				-0.0004 (0.0006)	-0.0002 (0.0008)	-0.0002 (0.0008)	-0.0002 (0.0008)	-0.0002 (0.0008)
Children 6-17y (%)				0.0010 $(0.0052)$	-0.0067 $(0.0052)$	-0.0070 $(0.0051)$	-0.0067 $(0.0051)$	-0.0070 $(0.0051)$
Physicians per 1000s				-0.0061 (0.0144)	-0.0047 (0.0117)	-0.0035 (0.0114)	-0.0047 (0.0118)	-0.0035 $(0.0115)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.066
Observations $R^2$	$1,792 \\ 0.021$	$1,792 \\ 0.022$	$1,792 \\ 0.022$	$1,792 \\ 0.022$	1,792 $0.048$	1,792 $0.053$	1,792 $0.048$	1,792 $0.053$

Table A.21: Intent-to-Treat Effects on Girls' Underweight Prevalence

				Girls' Ur	nderweight			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	-0.0042 (0.0107)	-0.0037 (0.0103)	-0.0042 (0.0105)	-0.0037 (0.0106)	-0.0032 (0.0107)	-0.0024 (0.0106)	-0.0037 (0.0107)	-0.0029 (0.0107)
Age		-0.0118 (0.0168)						
SES Index (percentile)			$0.0003 \\ (0.0003)$	0.0002 $(0.0003)$	0.0001 $(0.0003)$	-0.0009 (0.0009)	$0.0000 \\ (0.0003)$	-0.0008 $(0.0009)$
(SES Index) $^2$						$0.00001 \\ (0.00001)$		$0.00001 \\ (0.00001)$
Mother's Educ $\geq$ 6y							0.0194 $(0.0157)$	0.0171 $(0.0150)$
Locality Controls								
Marginality (percentile)				-0.0009** (0.0004)	-0.0000 (0.0006)	-0.0001 (0.0006)	$0.0000 \\ (0.0006)$	-0.0001 (0.0006)
Children 6-17y (%)				$0.0070* \\ (0.0039)$	0.0003 $(0.0058)$	0.0001 $(0.0058)$	0.0003 $(0.0057)$	$0.0001 \\ (0.0058)$
Physicians per 1000s				-0.0001 (0.0066)	0.0038 $(0.0053)$	0.0036 $(0.0052)$	$0.0040 \\ (0.0050)$	0.0037 $(0.0050)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
Observations $R^2$	2,022 $0.005$	2,022 $0.006$	2,022 $0.007$	2,022 0.011	2,022 $0.029$	2,022 0.030	2,022 $0.030$	2,022 0.031

Table A.22: Intent-to-Treat Effects on Boys' Overweight Prevalence

				Boys' C	verweight			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0005 $(0.0193)$	0.0006 (0.0194)	0.0013 (0.0195)	0.0022 $(0.0193)$	-0.0003 (0.0200)	-0.0022 (0.0194)	-0.0000 (0.0200)	-0.0020 (0.0195)
Age		-0.0230 $(0.0281)$						
SES Index (percentile)			$0.0005 \\ (0.0005)$	$0.0006 \\ (0.0006)$	$0.0006 \\ (0.0005)$	$0.0030* \\ (0.0015)$	0.0007 $(0.0005)$	0.0029* (0.0015)
(SES Index) $^2$						-0.00003 (0.00002)		-0.00003 (0.00002)
Mother's Educ $\geq$ 6y							-0.0179 $(0.0260)$	-0.0129 $(0.0257)$
Locality Controls								
Marginality (percentile)				$0.0008 \\ (0.0008)$	0.0014 $(0.0011)$	0.0014 $(0.0011)$	0.0014 $(0.0011)$	0.0014 $(0.0011)$
Children 6-17y (%)				-0.0066 $(0.0063)$	-0.0106 (0.0090)	-0.0105 $(0.0089)$	-0.0106 (0.0090)	-0.0105 $(0.0089)$
Physicians per 1000s				0.0056 $(0.0187)$	0.0094 $(0.0154)$	0.0087 $(0.0153)$	0.0096 $(0.0154)$	0.0088 $(0.0153)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.317	0.317	0.317	0.317	0.317	0.317	0.317	0.317
Observations $R^2$	2,339 $0.009$	$2,339 \\ 0.010$	$2,339 \\ 0.010$	2,339 $0.011$	2,339 $0.032$	2,339 $0.034$	2,339 $0.032$	$2,339 \\ 0.034$

Table A.23: Intent-to-Treat Effects on Girls' Overweight Prevalence

				Girls'	Overweigh	nt		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0166 (0.0196)	0.0175 (0.0197)	0.0173 $(0.0195)$	0.0173 (0.0195)	0.0174 (0.0186)	0.0149 (0.0184)	0.0173 (0.0186)	0.0145 (0.0184)
Age		-0.0295 $(0.0261)$						
SES Index (percentile)			$0.0005 \\ (0.0005)$	$0.0005 \\ (0.0005)$	$0.0005 \\ (0.0005)$	0.0033** (0.0014)	0.0004 $(0.0005)$	0.0034** (0.0014)
(SES Index) $^2$						-0.00003** (0.00002)		-0.00003** (0.00002)
Mother's Educ $\geq$ 6y							0.0181 $(0.0258)$	0.0259 $(0.0258)$
Locality Controls								
Marginality (percentile)				-0.0002 (0.0007)	0.0013 $(0.0009)$	0.0014 $(0.0010)$	0.0013 $(0.0009)$	0.0015 $(0.0010)$
Children 6-17y (%)				-0.0018 (0.0065)	-0.0106 (0.0076)	-0.0098 $(0.0076)$	-0.0106 (0.0076)	-0.0097 $(0.0076)$
Physicians per 1000s				0.0114 $(0.0099)$	0.0192* (0.0100)	0.0206** (0.0100)	0.0190* (0.0101)	0.0204** (0.0101)
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285
Observations $R^2$	2,647 $0.017$	2,647 $0.017$	2,647 $0.018$	2,647 $0.018$	2,647 $0.034$	2,647 $0.037$	2,647 $0.034$	2,647 0.037

Table A.24: Intent-to-Treat Effects on Boys' Obesity Prevalence

				Boys'	Obesity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0115 (0.0110)	0.0115 (0.0109)	0.0124 (0.0110)	0.0114 (0.0110)	0.0140 (0.0111)	0.0132 (0.0112)	0.0132 (0.0113)	0.0121 (0.0115)
Age		-0.0025 $(0.0178)$						
SES Index (percentile)			0.0006** (0.0002)	0.0005** (0.0003)	0.0006** (0.0003)	$0.0016* \\ (0.0009)$	$0.0005* \\ (0.0003)$	$0.0016* \\ (0.0009)$
(SES Index) $^2$						-0.00001 (0.00001)		-0.00001 (0.00001)
Mother's Educ $\geq$ 6y							0.0218 $(0.0163)$	0.0241 $(0.0168)$
Locality Controls								
Marginality (percentile)				-0.0008* (0.0004)	-0.0001 $(0.0007)$	-0.0001 $(0.0007)$	-0.0000 (0.0007)	-0.0000 (0.0007)
Children 6-17y (%)				0.0024 $(0.0041)$	0.0002 $(0.0060)$	0.0003 $(0.0060)$	0.0002 $(0.0059)$	0.0003 $(0.0060)$
Physicians per 1000s				$0.0006 \\ (0.0077)$	-0.0000 $(0.0078)$	-0.0004 $(0.0079)$	-0.0005 $(0.0077)$	-0.0009 (0.0078)
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.115	0.115	0.115	0.115	0.115	0.115	0.115	0.115
Observations $\mathbb{R}^2$	1,872 $0.013$	1,872 $0.013$	1,872 0.017	1,872 0.019	1,872 0.037	1,872 $0.037$	1,872 $0.038$	1,872 0.039

Table A.25: Intent-to-Treat Effects on Girls' Obesity Prevalence

				Girls	' Obesity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0015 $(0.0142)$	0.0024 (0.0144)	0.0015 $(0.0143)$	0.0014 $(0.0141)$	0.0028 (0.0141)	0.0017 (0.0144)	0.0031 $(0.0142)$	0.0018 (0.0144)
Age		-0.0204 $(0.0173)$						
SES Index (percentile)			0.0006** (0.0003)	0.0005** (0.0003)	0.0006** (0.0003)	0.0022*** (0.0008)	0.0006** (0.0003)	0.0022*** (0.0008)
(SES Index) $^2$						-0.00002* (0.00001)		-0.00002* (0.00001)
Mother's Educ $\geq$ 6y							-0.0082 $(0.0172)$	-0.0041 (0.0169)
Locality Controls								
Marginality (percentile)				-0.0003 (0.0004)	0.0003 $(0.0005)$	0.0004 $(0.0005)$	0.0003 $(0.0005)$	0.0004 $(0.0005)$
Children 6-17y (%)				0.0004 $(0.0048)$	-0.0027 (0.0068)	-0.0025 (0.0068)	-0.0027 (0.0068)	-0.0025 (0.0068)
Physicians per 1000s				-0.0009 (0.0061)	-0.0007 $(0.0063)$	-0.0003 (0.0064)	-0.0008 $(0.0063)$	-0.0004 (0.0064)
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072
Observations $\mathbb{R}^2$	2,026 $0.017$	2,026 0.018	2,026 $0.022$	2,026 $0.022$	2,026 0.039	2,026 $0.042$	2,026 0.040	2,026 0.043

Table A.26: Intent-to-Treat Effects on Boys' Height

				Boys' He	eight (cm)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.639** (0.303)	0.596* (0.304)	0.735** (0.296)	0.715** (0.289)	0.878*** (0.256)	0.875*** (0.254)	0.881*** (0.258)	0.875*** (0.256)
Age		1.466*** (0.429)						
SES Index (percentile)			0.053*** (0.006)	0.046*** (0.006)	0.046*** $(0.005)$	0.052*** (0.020)	0.042*** (0.006)	0.055*** $(0.019)$
(SES Index) $^2$						-0.0001 (0.0002)		-0.0001 $(0.0002)$
Mother's Educ $\geq$ 6y							0.826* (0.466)	$0.857^*$ $(0.471)$
Locality Controls								
Marginality (percentile)				-0.049*** (0.012)	0.001 $(0.014)$	0.001 $(0.014)$	0.003 $(0.013)$	0.003 $(0.013)$
Children 6-17y (%)				0.127 $(0.118)$	-0.265** (0.118)	-0.266** (0.118)	-0.270** (0.116)	-0.272** (0.116)
Physicians per 1000s				0.114 $(0.221)$	$0.062 \\ (0.195)$	0.063 $(0.195)$	0.041 $(0.191)$	0.044 $(0.192)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0
Observations $\mathbb{R}^2$	5,254 $0.647$	5,254 $0.649$	5,254 $0.660$	5,254 $0.665$	5,254 $0.678$	5,254 $0.678$	5,254 $0.679$	5,254 $0.679$

Table A.27: Intent-to-Treat Effects on Boys' Standardized Height for Age

-								
			I	Boys' Heigh	t-for-Age ( $z$	-score)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.067 $(0.043)$	0.069 (0.043)	0.081* (0.042)	0.078* (0.040)	0.099*** (0.035)	0.100*** (0.034)	0.099*** (0.034)	0.098*** (0.034)
Age		-0.041 (0.055)						
SES Index (percentile)			0.007*** (0.001)	0.006*** (0.001)	0.007*** (0.001)	0.006** (0.003)	0.006*** (0.001)	0.007** (0.003)
(SES Index) $^2$						$0.0000 \\ (0.0000)$		-0.0000 (0.0000)
Mother's Educ $\geq$ 6y							0.137** (0.056)	0.139** (0.056)
Locality Controls								
Marginality (percentile)				-0.005*** (0.002)	0.002 $(0.002)$	0.002 $(0.002)$	0.002 $(0.002)$	$0.002 \\ (0.002)$
Children 6-17y (%)				0.011 $(0.016)$	-0.047*** (0.016)	-0.047*** (0.016)	-0.047*** (0.016)	-0.047*** (0.016)
Physicians per 1000s				0.041 $(0.031)$	0.029 $(0.023)$	0.029 $(0.023)$	0.026 $(0.023)$	0.026 $(0.023)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	-0.49	-0.49	-0.49	-0.49	-0.49	-0.49	-0.49	-0.49
Observations $\mathbb{R}^2$	$4,644 \\ 0.075$	$4,644 \\ 0.076$	$4,644 \\ 0.112$	$4,644 \\ 0.122$	$4,644 \\ 0.157$	$4,644 \\ 0.157$	$4,644 \\ 0.161$	4,644 $0.161$

Table A.28: Intent-to-Treat Effects on Girls' Height

				Girls' H	eight (cm)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.068 (0.269)	0.059 $(0.267)$	0.081 (0.262)	0.129 (0.250)	0.215 (0.243)	0.216 (0.242)	0.247 (0.243)	0.237 $(0.241)$
Age		0.469 $(0.435)$						
SES Index (percentile)			0.036*** $(0.005)$	0.025*** (0.005)	0.024*** $(0.005)$	0.023 $(0.016)$	0.019*** $(0.005)$	0.029* $(0.015)$
(SES Index) $^2$						$0.0000 \\ (0.0002)$		-0.0001 (0.0002)
Mother's Educ $\geq$ 6y							1.266*** (0.253)	1.294*** (0.255)
Locality Controls								
Marginality (percentile)				-0.070*** (0.010)	-0.026** (0.012)	-0.026** (0.012)	-0.023** (0.012)	-0.023* (0.012)
Children 6-17y (%)				0.158 $(0.099)$	-0.151 $(0.109)$	-0.151 $(0.109)$	-0.152 $(0.108)$	-0.151 $(0.107)$
Physicians per 1000s				-0.256 $(0.202)$	-0.237 $(0.221)$	-0.237 $(0.221)$	-0.242 $(0.217)$	-0.242 (0.217)
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9
Observations $\mathbb{R}^2$	5,913 0.328	5,913 0.328	5,913 $0.342$	5,913 $0.362$	5,913 0.388	5,913 0.388	5,913 $0.393$	5,913 0.393

Table A.29: Intent-to-Treat Effects on Girls' Standardized Height for Age

			Gi	irls' Height-	for-Age $(z$ -s	score)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.020 (0.047)	0.023 (0.047)	0.023 (0.046)	0.023 (0.044)	0.033 (0.042)	0.033 (0.042)	0.036 (0.042)	0.034 (0.041)
Age		-0.093 $(0.070)$						
SES Index (percentile)			0.005*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004 $(0.003)$	0.003*** (0.001)	0.005* (0.003)
(SES Index) $^2$						-0.0000 (0.0000)		-0.0000 (0.0000)
Mother's Educ $\geq$ 6y							0.183*** (0.046)	0.188*** (0.046)
Locality Controls								
Marginality (percentile)				-0.010*** (0.001)	-0.003* (0.002)	-0.003* (0.002)	-0.003 $(0.002)$	-0.002 $(0.002)$
Children 6-17y (%)				0.023* $(0.014)$	-0.024 $(0.016)$	-0.024 (0.016)	-0.023 $(0.016)$	-0.023 (0.016)
Physicians per 1000s				-0.039 $(0.030)$	-0.042 $(0.034)$	-0.042 $(0.034)$	-0.045 $(0.033)$	-0.044 $(0.033)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	-0.61	-0.61	-0.61	-0.61	-0.61	-0.61	-0.61	-0.61
Observations $R^2$	5,190 $0.084$	$5,190 \\ 0.085$	$5,190 \\ 0.102$	$5,190 \\ 0.125$	$5,190 \\ 0.156$	$5,190 \\ 0.156$	$5,190 \\ 0.162$	5,190 0.162

Table A.30: Intent-to-Treat Effects on Boys' Weight

				Boys' W	Teight (kg)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.970** (0.457)	0.915** (0.442)	1.055** (0.438)	1.063** (0.439)	1.253*** (0.447)	1.246*** (0.447)	1.258*** (0.442)	1.245*** (0.441)
Age		2.103*** (0.619)						
SES Index (percentile)			0.047*** $(0.008)$	0.041*** (0.008)	0.044*** (0.008)	0.057* $(0.033)$	0.039*** $(0.008)$	0.061* $(0.032)$
(SES Index) $^2$						-0.0002 $(0.0004)$		-0.0002 (0.0004)
Mother's Educ $\geq$ 6y							1.054** (0.515)	1.109** (0.500)
Locality Controls								
Marginality (percentile)				-0.028* (0.015)	0.021 $(0.019)$	0.021 $(0.019)$	0.024 $(0.019)$	0.024 $(0.019)$
Children 6-17y (%)				-0.195 $(0.144)$	-0.386* (0.204)	-0.388* (0.205)	-0.391* (0.204)	-0.395* (0.204)
Physicians per 1000s				0.122 $(0.334)$	0.064 $(0.309)$	$0.067 \\ (0.308)$	0.042 $(0.304)$	0.046 $(0.303)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes							
Mean DV Observations R <sup>2</sup>	50.3 5,298 0.444	50.3 5,298 0.446	50.3 5,298 0.449	50.3 5,298 0.451	50.3 5,298 0.462	50.3 5,298 0.462	50.3 5,298 0.462	50.3 5,298 0.462

Table A.31: Intent-to-Treat Effects on Boys' Standardized Weight for Age

			Во	oys' Weight	-for-Age ( $z$ -	-score)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.079 $(0.053)$	0.078 $(0.052)$	0.089* (0.050)	0.090* (0.049)	0.109** (0.049)	0.106** (0.048)	0.108** (0.048)	0.105** (0.047)
Age		$0.026 \\ (0.062)$						
SES Index (percentile)			0.005*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.010*** (0.004)	0.004*** (0.001)	0.010*** $(0.003)$
(SES Index) $^2$						-0.0001 (0.0000)		-0.0001* (0.0000)
Mother's Educ $\geq$ 6y							0.146*** (0.045)	0.160*** (0.044)
Locality Controls								
Marginality (percentile)				-0.002 $(0.002)$	$0.002 \\ (0.002)$	$0.002 \\ (0.002)$	0.003 $(0.002)$	0.003 $(0.002)$
Children 6-17y (%)				-0.023 $(0.014)$	-0.039** (0.019)	-0.039** (0.019)	-0.040** (0.019)	-0.040** (0.019)
Physicians per 1000s				0.036 $(0.030)$	0.032 $(0.025)$	0.034 $(0.025)$	0.029 $(0.025)$	0.030 $(0.025)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Observations $\mathbb{R}^2$	4,637 $0.020$	4,637 $0.020$	4,637 $0.034$	4,637 $0.040$	4,637 $0.058$	4,637 $0.059$	4,637 $0.061$	4,637 0.063

Table A.32: Intent-to-Treat Effects on Girls' Weight

				Girls' W	Veight (kg)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.212 (0.484)	0.190 (0.481)	0.224 (0.483)	0.261 (0.476)	0.345 $(0.471)$	0.279 (0.477)	0.360 $(0.469)$	0.291 (0.474)
Age		0.829 $(0.637)$						
SES Index (percentile)			0.028*** (0.009)	0.021** (0.009)	0.020** (0.009)	0.083*** $(0.028)$	$0.017* \\ (0.009)$	0.086*** (0.028)
(SES Index) $^2$						-0.0007** (0.0003)		-0.0008** (0.0003)
Mother's Educ $\geq$ 6y							0.653 $(0.576)$	0.839 $(0.572)$
Locality Controls								
Marginality (percentile)				-0.042*** (0.015)	-0.009 $(0.015)$	-0.006 $(0.015)$	-0.007 $(0.015)$	-0.004 $(0.015)$
Children 6-17y (%)				0.004 $(0.161)$	-0.264* (0.158)	-0.263* (0.157)	-0.264* (0.157)	-0.263* (0.156)
Physicians per 1000s				-0.142 $(0.213)$	-0.169 $(0.233)$	-0.170 $(0.232)$	-0.171 $(0.234)$	-0.173 $(0.233)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
Observations $R^2$	5,823 $0.248$	5,823 0.248	5,823 $0.251$	5,823 $0.254$	5,823 $0.267$	5,823 $0.268$	5,823 $0.268$	5,823 0.269

Table A.33: Intent-to-Treat Effects on Girls' Standardized Weight for Age

-			(	Girls' Weigl	nt-for-Age	(z-score)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.036 $(0.042)$	0.038 $(0.043)$	0.038 (0.042)	0.039 (0.041)	0.042 (0.039)	0.034 $(0.038)$	0.042 (0.039)	0.034 (0.038)
Age		-0.063 $(0.043)$						
SES Index (percentile)			0.003*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.009*** $(0.002)$	0.002*** (0.001)	0.009*** $(0.003)$
(SES Index) $^2$						-0.0001*** (0.0000)		-0.0001*** (0.0000)
Mother's Educ $\geq$ 6y							-0.020 $(0.055)$	-0.003 $(0.056)$
Locality Controls								
Marginality (percentile)				-0.004*** (0.001)	-0.001 $(0.002)$	-0.001 $(0.002)$	-0.001 $(0.002)$	-0.001 $(0.002)$
Children 6-17y (%)				-0.012 $(0.014)$	-0.034** (0.017)	-0.034** (0.017)	-0.034** (0.017)	-0.034** (0.017)
Physicians per 1000s				$0.008 \\ (0.028)$	0.015 $(0.029)$	0.017 $(0.029)$	0.015 $(0.029)$	0.017 $(0.029)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Observations $R^2$	5,084 0.019	5,084 0.020	5,084 0.025	5,084 0.033	5,084 0.051	5,084 $0.053$	5,084 0.051	5,084 0.053

Table A.34: Intent-to-Treat Effects on Boys' BMI

				Boys	, BMI			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.169 (0.174)	0.155 (0.170)	0.178 (0.171)	0.190 (0.170)	0.227 (0.176)	0.222 (0.175)	0.228 (0.175)	0.222 (0.174)
Age		0.472** (0.198)						
SES Index (percentile)			0.005* $(0.003)$	$0.005 \\ (0.003)$	0.005* $(0.003)$	0.015 $(0.011)$	0.004 $(0.003)$	0.015 $(0.011)$
(SES Index) $^2$						-0.0001 (0.0001)		-0.0001 (0.0001)
Mother's Educ $\geq$ 6y							0.156 $(0.171)$	0.183 $(0.165)$
Locality Controls								
Marginality (percentile)				$0.003 \\ (0.005)$	0.010 $(0.007)$	0.010 $(0.007)$	0.010 $(0.007)$	0.010 $(0.007)$
Children 6-17y (%)				-0.117** (0.057)	-0.103 (0.084)	-0.105 $(0.084)$	-0.104 (0.084)	-0.106 (0.084)
Physicians per 1000s				0.068 $(0.105)$	$0.065 \\ (0.106)$	0.068 $(0.105)$	0.062 $(0.106)$	0.063 $(0.104)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
Observations $R^2$	$5,242 \\ 0.197$	5,242 $0.199$	5,242 $0.198$	5,242 $0.200$	5,242 $0.209$	5,242 $0.210$	$5,242 \\ 0.210$	5,242 0.210

Table A.35: Intent-to-Treat Effects on Boys' Standardized BMI for Age  $\,$ 

-			В	oys' BMI-fo	r-Age (z-se	core)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.041 (0.055)	0.040 (0.054)	0.044 $(0.054)$	0.048 (0.052)	0.057 $(0.055)$	0.055 $(0.054)$	0.057 $(0.054)$	0.054 $(0.053)$
Age		$0.045 \\ (0.060)$						
SES Index (percentile)			$0.001 \\ (0.001)$	$0.001 \\ (0.001)$	0.002* $(0.001)$	0.006* (0.003)	$0.001 \\ (0.001)$	0.007* $(0.003)$
(SES Index) $^2$						-0.0001 (0.0000)		-0.0001 (0.0000)
Mother's Educ $\geq$ 6y							$0.060 \\ (0.046)$	0.072 $(0.044)$
Locality Controls								
Marginality (percentile)				0.002 $(0.001)$	0.002 $(0.002)$	0.002 $(0.002)$	0.002 $(0.002)$	$0.002 \\ (0.002)$
Children 6-17y (%)				-0.035** (0.016)	-0.015 $(0.020)$	-0.015 $(0.020)$	-0.016 (0.020)	-0.016 $(0.020)$
Physicians per 1000s				0.012 $(0.028)$	0.014 $(0.025)$	$0.015 \\ (0.025)$	0.013 $(0.025)$	0.014 $(0.025)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Observations $R^2$	4,632 $0.011$	4,632 $0.012$	4,632 $0.012$	4,632 $0.015$	4,632 $0.028$	4,632 $0.029$	4,632 $0.029$	4,632 0.030

Table A.36: Intent-to-Treat Effects on Girls' BMI

				Gi	rls' BMI			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.120 (0.179)	0.117 (0.179)	0.121 (0.179)	0.122 (0.178)	0.134 (0.178)	0.108 (0.180)	0.130 (0.179)	0.106 (0.181)
Age		$0.162 \\ (0.223)$						
SES Index (percentile)			0.001 $(0.003)$	0.001 $(0.003)$	0.001 $(0.003)$	0.027** (0.010)	0.001 $(0.003)$	0.026** (0.010)
(SES Index) $^2$						-0.0003** (0.0001)		-0.0003** (0.0001)
Mother's Educ $\geq$ 6y							-0.163 $(0.207)$	-0.094 $(0.207)$
Locality Controls								
Marginality (percentile)				0.001 $(0.006)$	0.003 $(0.007)$	0.004 $(0.007)$	0.003 $(0.007)$	0.004 $(0.007)$
Children 6-17y (%)				-0.036 $(0.057)$	-0.056 $(0.067)$	-0.056 $(0.067)$	-0.056 $(0.068)$	-0.056 $(0.067)$
Physicians per 1000s				0.039 $(0.100)$	0.025 $(0.124)$	0.024 $(0.123)$	0.025 $(0.123)$	0.024 $(0.123)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
Observations $R^2$	$5,760 \\ 0.149$	$5,760 \\ 0.150$	$5,760 \\ 0.149$	$5,760 \\ 0.150$	$5,760 \\ 0.158$	$5,760 \\ 0.160$	$5,760 \\ 0.159$	$5,760 \\ 0.160$

Table A.37: Intent-to-Treat Effects on Girls' Standardized BMI for Age  $\,$ 

				Girls' BM	I-for-Age	(z-score)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.036 $(0.044)$	0.037 $(0.044)$	0.037 $(0.044)$	0.037 $(0.043)$	0.035 $(0.040)$	0.027 (0.040)	0.033 (0.040)	0.026 (0.040)
Age		-0.026 $(0.044)$						
SES Index (percentile)			$0.001 \\ (0.001)$	$0.001 \\ (0.001)$	$0.001 \\ (0.001)$	0.008*** (0.002)	$0.001 \\ (0.001)$	0.007*** $(0.002)$
(SES Index) $^2$						-0.0001*** (0.0000)		-0.0001*** (0.0000)
Mother's Educ $\geq$ 6y							-0.107** (0.050)	-0.092* $(0.051)$
Locality Controls								
Marginality (percentile)				$0.001 \\ (0.001)$	-0.000 (0.002)	$0.000 \\ (0.002)$	-0.000 (0.002)	-0.000 $(0.002)$
Children 6-17y (%)				-0.024* (0.013)	-0.016 $(0.015)$	-0.016 $(0.015)$	-0.017 $(0.015)$	-0.017 $(0.015)$
Physicians per 1000s				0.023 $(0.028)$	0.033 $(0.029)$	$0.035 \\ (0.028)$	0.034 $(0.029)$	0.036 $(0.028)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Observations $R^2$	$5,081 \\ 0.013$	$5,081 \\ 0.013$	$5,081 \\ 0.013$	$5,081 \\ 0.016$	$5,081 \\ 0.032$	$5,081 \\ 0.036$	$5,081 \\ 0.035$	5,081 $0.037$

Table A.38: Intent-to-Treat Effects on Boys' Underweight Prevalence

				Boys'	Underweigh	t		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	-0.0009 (0.0129)	-0.0002 (0.0128)	-0.0005 (0.0129)	-0.0008 (0.0128)	-0.0011 (0.0129)	-0.0006 (0.0127)	-0.0011 (0.0129)	-0.0006 (0.0126)
Age		-0.0226 $(0.0174)$						
SES Index (percentile)			0.0002 $(0.0003)$	$0.0001 \\ (0.0003)$	$0.0001 \\ (0.0003)$	-0.0009 (0.0010)	$0.0001 \\ (0.0003)$	-0.0009 (0.0010)
(SES Index) $^2$						$0.00001 \\ (0.00001)$		$0.00001 \\ (0.00001)$
Mother's Educ $\geq$ 6y							0.0091 $(0.0142)$	$0.0068 \ (0.0136)$
Locality Controls								
Marginality (percentile)				-0.0005 $(0.0003)$	-0.0001 $(0.0005)$	-0.0001 $(0.0005)$	-0.0001 $(0.0005)$	-0.0001 (0.0005)
Children 6-17y (%)				-0.0012 (0.0036)	-0.0087** (0.0038)	-0.0087** (0.0038)	-0.0088** (0.0038)	-0.0087** (0.0037)
Physicians per 1000s				-0.0045 $(0.0093)$	-0.0000 $(0.0095)$	-0.0002 (0.0094)	-0.0002 $(0.0095)$	-0.0003 (0.0094)
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
Observations $R^2$	3,517 $0.013$	3,517 $0.014$	3,517 $0.013$	3,517 $0.015$	3,517 $0.032$	3,517 $0.032$	3,517 $0.032$	3,517 0.033

Table A.39: Intent-to-Treat Effects on Girls' Underweight Prevalence

				Girls' U	nderweight	;		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0062 $(0.0125)$	0.0062 $(0.0125)$	0.0062 $(0.0125)$	0.0067 $(0.0125)$	0.0099 (0.0119)	0.0105 (0.0118)	0.0100 (0.0118)	0.0105 (0.0118)
Age		0.0014 $(0.0129)$						
SES Index (percentile)			0.0001 $(0.0003)$	0.0001 $(0.0003)$	0.0001 $(0.0002)$	-0.0006 $(0.0007)$	-0.0000 $(0.0003)$	-0.0005 $(0.0007)$
(SES Index) $^2$						$0.00001 \\ (0.00001)$		$0.00001 \\ (0.00001)$
Mother's Educ $\geq$ 6y							0.0215 $(0.0151)$	$0.0202 \\ (0.0151)$
Locality Controls								
Marginality (percentile)				-0.0002 $(0.0004)$	0.0009 $(0.0007)$	0.0009 $(0.0007)$	0.0009 $(0.0007)$	0.0009 $(0.0007)$
Children 6-17y (%)				0.0079** (0.0039)	-0.0019 (0.0049)	-0.0018 $(0.0049)$	-0.0017 $(0.0049)$	-0.0017 $(0.0049)$
Physicians per 1000s				0.0051 $(0.0066)$	0.0054 $(0.0065)$	0.0053 $(0.0065)$	0.0053 $(0.0065)$	0.0053 $(0.0065)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055
Observations $R^2$	3,886 $0.019$	3,886 $0.019$	3,886 $0.019$	3,886 $0.022$	3,886 $0.039$	3,886 $0.039$	3,886 $0.040$	3,886 0.041

Table A.40: Intent-to-Treat Effects on Boys' Overweight Prevalence

				Boys' C	verweight			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0210 (0.0183)	0.0207 (0.0181)	0.0220 (0.0181)	0.0223 (0.0176)	0.0240 (0.0184)	0.0240 (0.0184)	0.0241 (0.0183)	0.0240 (0.0183)
Age		0.0127 $(0.0234)$						
SES Index (percentile)			$0.0006* \\ (0.0003)$	$0.0005 \\ (0.0004)$	$0.0006* \\ (0.0004)$	$0.0006 \\ (0.0013)$	$0.0006 \\ (0.0004)$	$0.0006 \\ (0.0013)$
(SES Index) $^2$						-0.00000 (0.00001)		-0.00000 (0.00001)
Mother's Educ $\geq$ 6y							0.0069 $(0.0203)$	$0.0070 \\ (0.0197)$
Locality Controls								
Marginality (percentile)				0.0002 $(0.0006)$	0.0007 $(0.0008)$	0.0007 $(0.0008)$	0.0007 $(0.0008)$	0.0007 $(0.0008)$
Children 6-17y (%)				-0.0131* (0.0070)	-0.0133 (0.0099)	-0.0133 $(0.0098)$	-0.0133 $(0.0099)$	-0.0133 $(0.0098)$
Physicians per 1000s				-0.0046 (0.0111)	-0.0023 (0.0120)	-0.0023 (0.0120)	-0.0025 $(0.0120)$	-0.0025 $(0.0120)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.330	0.330	0.330	0.330	0.330	0.330	0.330	0.330
Observations $R^2$	4,977 $0.035$	4,977 $0.035$	4,977 $0.036$	4,977 $0.039$	4,977 $0.047$	4,977 $0.047$	4,977 $0.047$	4,977 $0.047$

Table A.41: Intent-to-Treat Effects on Girls' Overweight Prevalence

				Girls'	Overweight	t		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0378** (0.0185)	0.0380** (0.0186)	0.0379** (0.0185)	0.0378** (0.0188)	0.0392** (0.0188)	0.0367* (0.0190)	0.0393** (0.0189)	0.0369* (0.0190)
Age		-0.0090 $(0.0222)$						
SES Index (percentile)			0.0001 $(0.0003)$	0.0001 $(0.0003)$	$0.0001 \\ (0.0003)$	0.0026** (0.0011)	0.0001 $(0.0003)$	0.0027** (0.0011)
(SES Index) $^2$						-0.00003** (0.00001)		-0.00003** (0.00001)
Mother's Educ $\geq$ 6y							0.0026 $(0.0203)$	0.0094 $(0.0206)$
Locality Controls								
Marginality (percentile)				-0.0004 (0.0006)	0.0006 $(0.0007)$	0.0007 $(0.0007)$	$0.0006 \\ (0.0007)$	0.0007 $(0.0007)$
Children 6-17y (%)				0.0066 $(0.0059)$	0.0011 $(0.0063)$	0.0011 $(0.0063)$	0.0011 $(0.0063)$	0.0011 $(0.0063)$
Physicians per 1000s				-0.0074 $(0.0094)$	-0.0071 $(0.0113)$	-0.0070 (0.0113)	-0.0071 $(0.0113)$	-0.0071 $(0.0113)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.341	0.341	0.341	0.341	0.341	0.341	0.341	0.341
Observations $\mathbb{R}^2$	5,520 $0.024$	5,520 $0.024$	5,520 $0.024$	5,520 $0.025$	$5,520 \\ 0.039$	5,520 $0.041$	5,520 $0.039$	5,520 0.041

Table A.42: Intent-to-Treat Effects on Boys' Obesity Prevalence

				Boys'	Obesity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0120 (0.0102)	0.0120 (0.0102)	0.0123 (0.0101)	0.0126 (0.0101)	0.0156 (0.0106)	0.0157 (0.0107)	0.0157 $(0.0104)$	0.0157 (0.0105)
Age		-0.0019 $(0.0127)$						
SES Index (percentile)			0.0003 $(0.0002)$	0.0002 $(0.0002)$	0.0002 $(0.0002)$	-0.0000 (0.0008)	0.0001 $(0.0002)$	$0.0000 \\ (0.0008)$
(SES Index) $^2$						$0.00000 \\ (0.00001)$		$0.00000 \\ (0.00001)$
Mother's Educ $\geq$ 6y							0.0210 $(0.0137)$	$0.0208 \ (0.0139)$
Locality Controls								
Marginality (percentile)				-0.0003 (0.0004)	0.0004 $(0.0005)$	$0.0004 \\ (0.0005)$	$0.0005 \\ (0.0005)$	$0.0005 \\ (0.0005)$
Children 6-17y (%)				-0.0081** (0.0038)	-0.0092 (0.0058)	-0.0092 $(0.0058)$	-0.0094 $(0.0058)$	-0.0094 $(0.0058)$
Physicians per 1000s				$0.0085 \ (0.0083)$	0.0094 $(0.0090)$	0.0094 $(0.0090)$	0.0089 $(0.0090)$	0.0089 $(0.0090)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Observations $R^2$	$3,679 \\ 0.041$	$3,679 \\ 0.041$	$3,679 \\ 0.042$	3,679 $0.048$	$3,679 \\ 0.058$	3,679 $0.058$	$3,679 \\ 0.059$	3,679 $0.059$

Table A.43: Intent-to-Treat Effects on Girls' Obesity Prevalence

				Girls	' Obesity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years Treated	0.0203 (0.0139)	0.0204 (0.0136)	0.0201 (0.0138)	0.0202 (0.0141)	0.0226 (0.0143)	0.0219 (0.0144)	0.0226 (0.0143)	0.0219 (0.0144)
Age		-0.0056 $(0.0221)$						
SES Index (percentile)			0.0003 $(0.0002)$	0.0004 $(0.0002)$	0.0003 $(0.0002)$	$0.0012* \\ (0.0007)$	0.0003 $(0.0002)$	0.0012* (0.0007)
(SES Index) $^2$						-0.00001 (0.00001)		-0.00001 (0.00001)
Mother's Educ $\geq$ 6y							-0.0057 $(0.0167)$	-0.0036 (0.0169)
Locality Controls								
Marginality (percentile)				$0.0001 \\ (0.0004)$	0.0009** (0.0005)	0.0010** (0.0005)	0.0009** (0.0004)	0.0010** (0.0005)
Children 6-17y (%)				-0.0004 (0.0041)	-0.0070 $(0.0055)$	-0.0070 $(0.0056)$	-0.0070 $(0.0055)$	-0.0070 $(0.0056)$
Physicians per 1000s				-0.0103 $(0.0092)$	-0.0140 $(0.0089)$	-0.0140 $(0.0088)$	-0.0140 $(0.0089)$	-0.0140 $(0.0088)$
State FE	no	no	no	no	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes	yes
Mean DV	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
Observations $\mathbb{R}^2$	$3,964 \\ 0.079$	$3,964 \\ 0.079$	$3,964 \\ 0.080$	$3,964 \\ 0.080$	3,964 $0.091$	3,964 $0.092$	3,964 $0.092$	3,964 $0.092$

Table A.44: Intent-to-Treat Effects by Socioeconomic Status on Anthropometric Measures

	Heig	ht (cm)	Weigh	nt (kg)	В	MI
	(1) Boys	(2) Girls	(3) Boys	(4) Girls	(5) Boys	(6) Girls
	0.694*** (0.244)	0.349* (0.198)	1.107*** (0.378)	1.269*** (0.373)	0.281** (0.117)	0.534*** (0.142)
High SES $\times$ Years Treated	0.208 $(0.191)$	0.207 $(0.177)$	0.146 $(0.323)$	$0.673* \\ (0.358)$	-0.037 $(0.112)$	0.322** (0.135)
SES Index (percentile)	0.119*** (0.035)	0.107*** (0.026)	0.184*** (0.042)	0.221*** (0.043)	0.053*** $(0.017)$	0.060*** $(0.017)$
(SES Index) $^2$	-0.0005 (0.0004)	-0.0007*** (0.0003)	-0.0012*** (0.0004)	-0.0018*** (0.0005)	-0.0004** (0.0002)	-0.0005*** (0.0002)
Locality Controls						
Marginality (percentile)	0.042** (0.016)	-0.029* (0.015)	0.038 $(0.026)$	0.016 $(0.026)$	$0.008 \\ (0.009)$	0.016 $(0.010)$
Children 6-17y (%)	-0.394** (0.155)	-0.138 $(0.152)$	-0.205 $(0.224)$	-0.343 $(0.293)$	-0.023 $(0.079)$	-0.152 $(0.109)$
Physicians per 1000s	0.489 $(0.388)$	-0.122 $(0.289)$	0.261 $(0.336)$	$0.678* \\ (0.393)$	$0.006 \\ (0.114)$	0.339*** $(0.124)$
State FE	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes
Mean DV	144.1	145.2	41.7	42.8	19.8	20.0
Observations $\mathbb{R}^2$	$2,511 \\ 0.771$	$2,720 \\ 0.502$	$2,530 \\ 0.561$	$2,688 \\ 0.366$	$2,506 \\ 0.227$	2,670 0.211

Table A.45: Intent-to-Treat Effects by Socioeconomic Status on BMI Categories

	Under	weight	Over	weight	Ob	esity
	(1) Boys	(2) Girls	(3) Boys	(4) Girls	(5) Boys	(6) Girls
	0.0116 (0.0112)	-0.0110 (0.0078)	0.0273* (0.0162)	0.0448*** (0.0158)	0.0198** (0.0095)	0.0227*** (0.0072)
High SES $\times$ Years Treated	0.0096 $(0.0103)$	$0.0006 \\ (0.0097)$	-0.0165 $(0.0138)$	0.0188 $(0.0154)$	$0.0050 \\ (0.0074)$	0.0131* (0.0072)
SES Index (percentile)	-0.0036* (0.0021)	-0.0010 (0.0009)	0.0055*** $(0.0018)$	0.0060*** (0.0020)	0.0027** (0.0011)	0.0029*** (0.0009)
(SES Index) $^2$	$0.00004 \\ (0.00002)$	$0.00001 \\ (0.00001)$	-0.00004** (0.00002)	-0.00005*** (0.00002)	-0.00002* (0.00001)	-0.00002** (0.00001)
Locality Controls						
Marginality (percentile)	-0.0003 $(0.0008)$	0.0001 $(0.0006)$	0.0016 $(0.0012)$	0.0015 $(0.0010)$	-0.0003 $(0.0007)$	$0.0005 \\ (0.0005)$
Children 6-17y (%)	-0.0070 $(0.0057)$	$0.0004 \\ (0.0063)$	-0.0117 $(0.0092)$	-0.0077 $(0.0079)$	0.0017 $(0.0063)$	-0.0021 $(0.0070)$
Physicians per 1000s	-0.0066 $(0.0119)$	-0.0013 $(0.0054)$	0.0072 $(0.0136)$	0.0222** (0.0102)	-0.0006 $(0.0072)$	-0.0004 $(0.0065)$
State FE	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes
Mean DV	0.068	0.069	0.318	0.289	0.115	0.077
Observations $R^2$	$1,667 \\ 0.058$	$1,845 \\ 0.032$	$2,168 \\ 0.045$	$2,424 \\ 0.046$	$1,739 \\ 0.043$	1,851 $0.053$

Table A.46: First Stage OLS Estimates on Take-up Rate (Binary)

			Γ	Take-up in 2	006		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treated=1	0.147*** (0.026)	0.135*** (0.024)	0.135*** (0.022)	0.134*** (0.022)	0.134*** (0.022)	0.134*** (0.021)	0.136*** (0.021)
SES Index (percentile)			-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)
Mun. Marginality Index (percentile)				0.003*** (0.001)	0.003*** (0.001)	0.002** (0.001)	0.002* (0.001)
Locality Controls							
Physicians per 1000s					-0.023*** (0.006)	-0.031*** (0.007)	-0.028*** (0.007)
Illiteracy Rate (%)						0.016*** (0.005)	0.014** (0.006)
Mean Schooling (years)						0.035*** (0.012)	0.053*** (0.013)
Members per Household							0.085 $(0.054)$
Female (%)							-0.024** (0.011)
State FE	no	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes
Mean DV	144.7	144.7	144.7	144.7	144.7	144.7	144.7
Observations	5,714	5,714	5,714	5,714	5,714	5,714	5,714
$\mathbb{R}^2$	0.118	0.155	0.261	0.278	0.283	0.291	0.298

Notes: Sample restricted to children born between 1987–1989 from urban localities not treated by 2000. Standard errors clustered by locality. All regressions include sample weights. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10.

Sources: ENSANUT, Progresa Administrative Records, CONAPO, INEGI, Ministry of Health.

Table A.47: First Stage OLS Estimates on Take-up Rate (Continuous)

			Γ	Take-up in 20	006		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Years Treated	0.035*** (0.006)	0.032*** (0.006)	0.032*** (0.005)	0.032*** (0.005)	0.032*** (0.005)	0.032*** (0.005)	0.033*** (0.005)
SES Index (percentile)			-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)
Mun. Marginality Index (percentile)				0.003*** (0.001)	0.003*** (0.001)	0.002** (0.001)	0.002* (0.001)
Locality Controls							
Physicians per 1000s					-0.023*** (0.006)	-0.031*** (0.008)	-0.028*** (0.007)
Illiteracy Rate (%)						0.016*** (0.005)	0.014** (0.006)
Mean Schooling (years)						0.035*** (0.012)	0.054*** $(0.013)$
Members per Household							$0.088* \\ (0.053)$
Female (%)							-0.024** (0.011)
State FE	no	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes
Mean DV	144.7	144.7	144.7	144.7	144.7	144.7	144.7
Observations D2	5,714	5,714	5,714	5,714	5,714	5,714	5,714
R <sup>2</sup>	0.119	0.156	0.263	0.280	0.284	0.292	0.300

Notes: Sample restricted to children born between 1987–1989 from urban localities not treated by 2000. Standard errors clustered by locality. All regressions include sample weights. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10.

Sources: ENSANUT, Progresa Administrative Records, CONAPO, INEGI, Ministry of Health.

Table A.48: First Stage OLS Estimates on Take-up Rate (Categories)

			Γ	Take-up in 2	006		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Years Treated=4	0.127*** (0.029)	0.115*** (0.027)	0.113*** (0.025)	0.114*** (0.024)	0.113*** (0.024)	0.112*** (0.023)	0.111*** (0.023)
Years Treated=5	0.197*** (0.048)	0.183*** (0.046)	0.187*** (0.042)	0.184*** (0.040)	0.184*** (0.039)	0.187*** (0.039)	0.199*** (0.038)
SES Index (percentile)			-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)
Mun. Marginality Index (percentile)				0.003*** (0.001)	0.003*** (0.001)	0.002** (0.001)	0.002* (0.001)
Locality Controls							
Physicians per 1000s					-0.023*** (0.006)	-0.031*** (0.008)	-0.028*** (0.007)
Illiteracy Rate (%)						0.016*** (0.005)	0.014** (0.006)
Mean Schooling (years)						0.036*** (0.012)	0.055*** $(0.013)$
Members per Household							0.093* (0.052)
Female (%)							-0.025** (0.011)
State FE	no	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes	yes
Mean DV	144.7	144.7	144.7	144.7	144.7	144.7	144.7
Observations P <sup>2</sup>	5,714	5,714	5,714	5,714	5,714	5,714	5,714
$\mathbb{R}^2$	0.120	0.156	0.264	0.280	0.285	0.293	0.302

Notes: Sample restricted to children born between 1987–1989 from urban localities not treated by 2000. Standard errors clustered by locality. All regressions include sample weights. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10. Sources: ENSANUT, Progresa Administrative Records, CONAPO, INEGI, Ministry of Health.

Table A.49: LATE Estimates per Year on Anthropometric Measures

	Height (cm)		Weight (kg)		BMI	
	(1) Boys	(2) Girls	(3) Boys	(4) Girls	(5) Boys	(6) Girls
$\widehat{Progresa} = 1$	-1.605* (0.924)	0.814 (0.957)	-1.969 (1.591)	0.083 (1.667)	-0.128 (0.520)	0.263 (0.561)
SES Index (percentile)	0.646*** (0.173)	0.022 $(0.179)$	$0.265 \\ (0.241)$	0.209 $(0.260)$	-0.013 (0.087)	0.098 $(0.094)$
(SES Index) $^2$	-0.0224*** $(0.0072)$	0.0049 $(0.0074)$	-0.0057 $(0.0112)$	-0.0009 (0.0106)	0.0020 $(0.0038)$	-0.0018 $(0.0037)$
Locality Controls						
Marginality (percentile)	0.048* (0.028)	-0.058*** (0.021)	$0.016 \\ (0.036)$	-0.069** (0.034)	0.004 $(0.011)$	-0.015 $(0.012)$
Children 6-17y (%)	-0.071 $(0.267)$	-0.022 $(0.252)$	0.048 $(0.333)$	0.276 $(0.451)$	-0.104 (0.106)	-0.005 $(0.153)$
Physicians per 1000s	-0.717 $(0.529)$	0.159 $(0.474)$	-0.908 (0.901)	-0.388 $(0.815)$	-0.074 $(0.301)$	-0.013 $(0.319)$
State FE	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes
Mean DV	141.3	142.5	38.4	39.2	18.9	19.1
Observations $\mathbb{R}^2$	771 0.800	$896 \\ 0.556$	$778 \\ 0.662$	$878 \\ 0.530$	$770 \\ 0.374$	875 0.366

Table A.50: LATE Estimates per Year on BMI Categories

	Underweight		Overweight		Obesity	
	(1) Boys	(2) Girls	(3) Boys	(4) Girls	(5) Boys	(6) Girls
$\widehat{Progresa} = 1$	0.0015 $(0.0542)$	0.0084 (0.0307)	0.0128 (0.0683)	0.0473 (0.0660)	-0.0256 (0.0430)	0.0157 $(0.0202)$
SES Index	$0.0068 \\ (0.0083)$	0.0031 $(0.0059)$	-0.0194 $(0.0122)$	0.0189 $(0.0115)$	$0.0036 \\ (0.0050)$	$0.0010 \\ (0.0038)$
(SES Index) $^2$	-0.00025 $(0.00034)$	-0.00015 $(0.00020)$	0.00100** (0.00051)	-0.00041 $(0.00047)$	-0.00009 (0.00020)	0.00002 $(0.00014)$
Locality Controls						
Marginality (percentile)	0.0002 $(0.0015)$	-0.0008 (0.0008)	0.0033* (0.0019)	-0.0009 (0.0016)	-0.0009 (0.0007)	-0.0005 $(0.0005)$
Children 6-17y (%)	-0.0126 (0.0108)	-0.0012 (0.0111)	-0.0428** (0.0182)	-0.0041 (0.0160)	0.0011 $(0.0079)$	-0.0024 $(0.0071)$
Physicians per 1000s	-0.0361 $(0.0309)$	-0.0178 $(0.0229)$	-0.0057 $(0.0372)$	-0.0228 $(0.0435)$	-0.0274 $(0.0225)$	0.0029 $(0.0105)$
State FE	yes	yes	yes	yes	yes	yes
$\operatorname{Cohort} \times \operatorname{Time}  \operatorname{FE}$	yes	yes	yes	yes	yes	yes
Mean DV	0.082	0.083	0.245	0.217	0.054	0.032
Observations $\mathbb{R}^2$	$554 \\ 0.102$	$635 \\ 0.088$	$674 \\ 0.131$	801 0.109	$550 \\ 0.138$	$631 \\ 0.076$