Structure/Method/Design: We use detailed facility-level data from Colombia, Ghana, India, Kenya, Lebanon, Zambia, and Uganda. In each country, we collected data in approximately 200 facilities over a 5-year period. In addition, 12,000 patient interviews were conducted with the aim of gathering information on consumer perception of health facility quality.

We specify a production model with five inputs and seven outputs. Inputs include the number of beds as proxy for capital, and four categories for labor (doctors, nurses, other medical staff, and administrative staff). As with respect to output, outpatient visits include basic outpatient services, ART (antiretroviral treatment), malaria, antenatal care, and emergency. For inpatient services we use inpatient days, births, and surgery.

To avoid biased efficiency estimates due to heterogeneous technology, we propose an innovative approach that adjust outputs across facilities. We first identify all pharmaceuticals and equipment related to the production of each output and build a score that reflects the extent to which technology is available in the facility.

We then use consistent bootstrap DEA models using the adjusted outputs to compute technical efficiency scores by controlling for measurement error and noisy data. We include minimal weight restrictions to reflect the relative importance of inputs and outputs in the production process of health facilities. Weight restrictions are chosen to maintain the radial nature of efficiency valid.

We finally use output weights provided by DEA to calculate the marginal rate of transformation between outputs. This information is critical to the estimation of average costs for each output.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): We find evidence of important inefficiency (40% on average) with massive variation across facilities. Inefficiency substantially increases average costs to produce health services (35% on average). Also, we find evidence of efficiency increases over time of about 10%, likely due to the scale-up of ART treatment and related services. Additional evidence is necessary to assess the causal relationship.

Summary/Conclusion: We find evidence of potential efficiency increases. Efficiency increase of health services production in developing countries is paramount to exploit the potential of service coverage extension and fair allocation of resources. For this purpose, higher-quality data and systematic efficiency assessment analyses are needed.

Can bans break bad habits? An interrupted time series analysis of the impact of the 2005 high school smoking ban on teenage smoking behavior in Chile

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Background: Objectives: To evaluate the impact of the 2005 school smoking ban on smoking prevalence among the high school population compared to the general population aged 19 to 24 years in Chile, the country with the world's highest teenage smoking prevalence. The secondary objective was to evaluate the impact of this ban on high- versus low-frequency smokers.

Structure/Method/Design: The analysis followed an interrupted time series (ITS) design with a comparison group. The data consisted of biennially repeated population cross sections representative at the regional level in Chile between the years 2000 to 2011. The data for the intervention group (high school population, ages 12-18 years)

originated from the Chilean SENDA población escolar dataset (n ∼ 50,000 per data year), and the data for the comparison group (age 19-24 years) originated from the Chilean SENDA población general dataset (n ∼ 2,000 per data year).

In 2005, Chile passed a tobacco-regulatory law #20.105, effective January 1st, 2006. The strictest provision of the law was a complete smoking ban in all high schools and a tobacco sales ban within a radius of 300 m (∼1,000 feet) of all schools. The effect of this ban on the high school student population was the focus of this analysis. A two-stage ITS analysis via Poisson models was performed to assess the difference in change in slopes of smoking behavior pre- and post-policy between groups.

Thirty-day smoking prevalence change before and after the law, change in prevalence of heavy smokers before and after the law.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Past 30-day smoking prevalence during 2000-2001 was 41.9% and 55.1% among high school students and young adults, respectively. While smoking prevalence increased a relative 0.6% per year among HS students in the pre-intervention period 2000-2005 (RR, 1.01, 95% CI, 1.00-1.01, $P = 0.014$), no significant change was observed among young adults. Post-2006, the smoking prevalence decreased annually by -2.9% (95% CI, -5.0% to -0.1%, $P = 0.009$) in the high school group compared to the university aged group. A direct policy intervention effect of a -14.5% change over 5 years (or -29.0% over 10 years) can be attributed to the law. The impact of the smoking ban was driven by the decline in smoking prevalence in 8th- through 10th-grade students. The law was effective in reducing the relative proportion of low frequency smokers, but the proportion of heavy smokers (smoking more than 15 days per month) remained unchanged.

Summary/Conclusion: The 2005/06 high school smoking ban was successful in reducing the smoking prevalence among Chilean teenagers, but future interventions tackling older high school students and more frequent smokers are needed.

Health domains for sale: The need for better global eHealth governance of health information online

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Background: A debate on Internet governance for health, or "eHealth governance" is emerging with the impending award of a new dot-health (.health) generic top-level domain name ("gTLD") to a private sector entity by The Internet Corporation for Assigned Names and Numbers ("ICANN"), a multistakeholder nonprofit international organization that controls this system.

Structure/Method/Design: This was a descriptive global health policy study. We reviewed the applications of health-related gTLDs and assessed factors of application status and country of origin, entity type of applicant (public vs. private), applicant affiliations, proposed governance of gTLD, and the presence of any support/partnership from the health sector. Analysis was conducted in August 2013.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Upon our analysis, we found that prospective .health applicants are all business corporations with few or no ties to the global public health community. If approved, one of these companies would effectively control the future of the .health address on