The Impact of the 1998-2002 Great Depression in Argentina on Child and Maternal Health

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Between 1998 and 2002, Argentina experienced an economic depression that had devastating effects on the country's economy and substantially increased poverty and reduced financial security among the Argentinean population. In 2001 and 2002, the Argentina GDP declined by over 4% and 10%, respectively. The large drops in employment and currency value and loss of savings caused many families to fall into poverty, including many into extreme poverty. The depression likely had dramatic effects on population health. However, empirical work on the depression effects on some of the most vulnerable population groups, including pregnant women and infants, is very scant.

We evaluate the effects of the great depression in Argentina on the health and prenatal behaviors of pregnant women and on infant health. Using unique data collected on births from a large network of hospitals in South America, we employ a difference-in-differences (DD) model to evaluate changes in these outcomes during the depression in Argentina, using Brazil and Chile, two neighboring countries that did not experience the depression as controls.

The data were systematically collected across covered hospitals and countries by the Latin American Collaborative Study of Congenital Anomalies (ECLAMC), an epidemiological surveillance program in South America. ECLAMC involves a large network of hospitals in these South American countries; ECLAMC-affiliated physicians monitor and enroll into ECLAMC all newborn cases with birth defects in their hospitals. A sample of infants born

without birth defects is also enrolled. The dataset spans a long period before and after the recession. Data on household demographics, maternal health, health behaviors, and socioeconomic indicators (such as maternal and paternal education) were collected through interviews with mothers before being discharged after delivery. Several infant health outcomes were also measured.

Our analytical sample includes infants born without birth defects and their mothers who were enrolled into the ECLAMC between 1993 and 2007, covering five full years before and after the great depression. The sample includes around 20,000 births from Argentina, 24,000 from Brazil, and 13,000 from Chile. We evaluate several maternal behaviors and health outcomes including delay in seeking prenatal care, number of prenatal visits, indicators for quality of prenatal care (ultrasounds, immunizations), pregnancy complications, and presence of chronic health and acute health conditions during pregnancy. We also evaluate maternal and paternal employment status and occupational activity as outcomes. We examine several infant health indicators including birth weight, gestational age, fetal growth rate, and hospital discharge status after birth [e.g. discharged alive, length of stay before discharge].

The DD model estimates the depression effect by differencing the change in outcomes during the depression period in Argentina from that in Brazil and Chile. We evaluate separate models for Chile and Brazil as controls. The regression controls for several household demographic indicators unaffected by the depression and hospital of birth fixed effects. In addition to estimating overall effects, we examine the effects by maternal age and education to capture effects on younger and less educated mothers who may have been more adversely affected by the depression.