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Bridging the gap for Roma: The effects of an ethnically targeted program on prenatal care and child health☆

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ABSTRACT

This study uses quasi-experimental variation from a public health program implemented in Romania that targeted Roma, Europe's largest and most disadvantaged ethnic minority. The program employed health mediators to increase the provision of information about already existing, free of charge health services available for children and pregnant women. We find that, in rural areas, the program led to large increases in prenatal care take-up rates but no improvements in children's health at birth. However, we find significant reductions in infant mortality caused by perinatal complications.

1. Introduction

A large number of studies show that health-induced inequalities start in the prenatal period, are apparent at birth (when looking at measures such as birth weight or premature delivery), and widen as individuals age (Almond and Currie, 2011a, 2011b). At the same time, a growing literature indicates that interventions during pregnancy and early childhood matter for outcomes later in life, such as adult health and human capital, as well as for the outcomes of future generations (Black et al., 2007; Bharadwaj et al., 2013; Currie and Moretti, 2007; Royer, 2009). Moreover, early life health interventions are also shown to help narrow the racial and ethnic gaps in education, earnings, and health. For instance, Chay et al. (2009, 2014) show that the racial integration of Southern hospitals in the US during the 1960's led to post-birth health improvements for Blacks that are strongly associated with positive long-term effects on human capital accumulation and played an important role in the black-white racial convergence in education and earnings decades later.[2]

In this study we advance the literature on early life interventions and health inequalities by evaluating the impact of a unique health program aimed at a large, very disadvantaged and understudied ethnic minority in Europe: Roma. This ethnic group faces severe poverty (about 90 percent live below national poverty lines) and life-long inequalities, particularly with regards to their health status (EU and UNDP Report, 2013). We investigate the effects of the Roma Health Mediation (RHM) program, a program designed to increase information provision on access to health care among Roma people, with a particular focus on pregnant

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[2] Almond et al. (2006) find that this early intervention is also associated with racial convergence in later adult health and with the health of the next generation of infants.

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and postpartum women and their children. Starting in 2002, the program was implemented gradually in Romania, a country with one of the largest Roma communities in the region.[3] The outreach was conducted by Roma health mediators - women from the local communities trained and employed by the Ministry of Health to promote the importance of prenatal care for child health among pregnant Roma women, inform them about the right to free medical care during their pregnancy, and facilitate the verbal communication between Roma women and the family physicians, usually by accompanying them during the medical visit. The program also emphasized the importance of beneficial child rearing practices such as breastfeeding and vaccination, and, later on, aimed to increase the usage of family planning methods. The main role of the health mediators was to increase awareness about the existing free medical services that pregnant women could access, but they could not offer medical advice or assistance of any kind. Thus, this program is one of the few early interventions targeting a disadvantaged ethnic group by increasing the provision of information about health and health care through home visits of non-medical personnel, as opposed to specialist-provided care, and it is one of the first evaluations targeting a specific ethnic minority in a multi-ethnic middle-income country.

Understanding whether information about health care provision could narrow the health gaps among different minorities is of great importance for policy not only because of efforts to increase child health in general but also because the lifelong disparities in health are already apparent at birth. In Romania, for instance, relative to non-Roma children, Roma children are significantly more likely to have a low birth weight (20 vs. 11%) and to be born prematurely (14 vs. 8%), and they have a significantly higher infant mortality rate (51 vs. 27 per 1,000 live births). These disparities are large even compared to those faced by other disadvantaged ethnic groups such as African Americans in the US.

Because the RHM program was not randomly implemented, we investigate its effect on several health-related outcomes by exploiting the spatial and temporal variation in the implementation; our sample includes all Roma children registered in the Romanian Vital Statistics files over the period 2000-2008, in the rural localities that implemented the program. First, we analyze whether the program impacted the prenatal care take-up rates of Roma women and the health at birth of their children. Next, we match the live births with the Mortality Files to investigate whether the program affected infant mortality, distinguishing between the following causes of death: preventable diseases, perinatal complications, fetal complications, and other causes.

Our findings indicate that the program successfully improved the prenatal health-seeking behavior of Roma women residing in rural areas. Relative to those pregnant before the program implementation in their locality of residence, Roma women pregnant up to and more than two years after the implementation experienced seven and thirty percentage point increases (13 and 56% of the mean) in prenatal care take-up rates, respectively. Similarly, the estimated effect on the number of months under prenatal supervision is a half month increase for children born up to two years after the program initiation and a roughly two month increase (52% of the mean) for children born more than two years after the program started. These very large increases in take-up of prenatal care are not reflected in improvements in health outcomes at birth, as measured by low birth weight and premature delivery indicators, but we do find a decrease in Roma infant mortality, especially due to complications arising in the perinatal period. These results are robust to using an event study analysis and to various specification checks and time trends. For instance, we consider specifications looking at Romanians in the treated localities and Roma in the untreated localities. Using additional survey data that included information on outcomes that may have been influenced by the program but are not collected in the registered files, we find that compared to before, after the program implementation, Roma women felt less discriminated against in general and when seeking medical care in particular; also, they were less likely to use abortion and more likely to exclusively breastfeed their children.

Overall, our findings indicate that the quantity of prenatal care visits does not have a direct impact on children's outcomes at birth, in line with previous evidence (Currie and Rossin-Slater, 2015), but the take-up of prenatal care seems to change the post-birth behavior of Roma mothers-to-be (e.g., breastfeeding and subsequent utilization of pediatric care), leading to lower infant mortality, a channel suggested in Reichman et al. (2010). We do not interpret these results as an argument against prenatal care, but they suggest that, at least for very disadvantaged women, who lack the ability to follow the standard medical recommendations regarding e.g., nutrition or vitamin supplements, prenatal care per se is not sufficient to change the health outcomes at birth of their children, but it is still beneficial as it sets the ground for subsequent health care-seeking behaviors. In our Mechanism section we further argue that channels such as the quality of the care, the increased probability of survival of marginal children, self-reporting Roma ethnicity or migration are not likely to drive our results.

This study brings new evidence on the importance of the targeted provision of information about the availability of (free of charge) medical services as an effective early life intervention to increase the take-up of medical care among disadvantaged groups. Thus, our study contributes to the growing literature that argues that factors such as lack of knowledge, hassle costs, and procrastination are important barriers that explain the low take-up of welfare programs among various disadvantaged minorities (Bertrand et al., 2006). Outreach programs were found to increase the information about already available services, reducing the non-price barriers to care and leading to increases in the take-up rates of welfare programs among marginalized individuals. Aizer (2007) shows that outreach programs are successful in increasing the take-up rate of Medicaid among already eligible individuals, especially for minorities that face language barriers, and improve health status through the increased use of preventive care and lower hospitalization rates for preventable diseases. Currie and Grogger (2002) also find that administrative measures to encourage the use of prenatal care among Medicaid-eligible women have increased take-up rates and reduced fetal deaths, especially for Blacks. However, to our knowledge, no study has addressed the issue of program take-up in the context of ethnically targeted programs.

This paper also complements the literature that analyzed the effects of infant care provided by home visits in different countries. Several studies analyze the Danish home visiting program initiated in 1937 and show significant short and long-term health improvements (Wüst, 2012; Hjort et al., 2017), and the evidence from the expansion of mother and child health centers in Norway finds positive long-term effects not only on health but also on education and labor market outcomes (Butikofer et al., 2016). In developing countries, community health workers have been shown to improve infant health and child survival rates (Haines et al., 2007). One important difference is that nurses and midwives in these programs were usually actively involved monitoring child health and providing physical examinations and medical services (e.g., prescribing medications and vaccinations), whereas, in our setting, the mediators exclusively provided information about the rights of children and pregnant women to seek free medical care and accompanied them to medical visits.

The rest of the paper is structured as follows. Section 2 presents the program, focusing on the implementation process at the locality level. Section 3 describes the data and our identification strategy. Section 4 presents our main results and robustness tests on outcomes relating to prenatal medical take-up and child health at birth. Section 5 discusses

[3] Roma is the third largest ethnic group in Romania; unofficial estimates put the percent of the total population at about 5% (approximately 1 million individuals), but only 3.5% of the total Romanian population self-identified as Roma in the 2011 census. Although Roma self-identification in official data is an important issue that we will discuss later, the Roma communities targeted by the RHM program in our study were selected using information from existing Roma NGOs and, therefore, the self-identification problem is minimal.