The Impact of Access to Clean Water on Cognitive and Physical Development: Evidence from Mexico’s Programa de Agua Limpia

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Abstract: More than three-quarters of a billion people live without a close source of clean water. While, the immediate impact of clean water access on infant mortality is well documented, there is very limited evidence on the long-term effect of chlorinated water. We exploit exogenous variation created by the implementation of a major clean water reform in Mexico in 1991, Programa de Agua Limpia (PAL), to investigate the impact of exposure to chlorinated water early in life on cognitive and physical development. We estimate that experiencing a one standard deviation reduction in childhood diarrhea mortality rates from PAL throughout infancy leads to ~6% increase in cognitive assessment score and .11 standard deviation increase in height in adolescence. We also confirm that the effects on human capital persist to at least early adulthood and lead to increased hourly earnings.

Keywords: clean water, diarrhea, cognitive development, height, Mexico

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