Conexiones a Agua Potable para los Hogares en Tánger, Marruecos

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Sector(s): Salud

Fieldwork: Innovations for Poverty Action (IPA)

Ubicación: Tanger, Morocco

Muestra: 1.000 propietarios de viviendas en las zonas urbanas

Grupo objetivo: Urban population Families and households

Resultado de interés: Citizen satisfaction Diarrhea Water quality

Tipo de intervención: Housing and neighborhoods Water, sanitation, and hygiene

Número de registro del AEA RCT Registry: AEARCTR-0001649

Datos: Download dataset from Open ICPSR

Socios Implementadores: Amendis, Veolia Water

Problema de política pública

Los hogares en los países en vías de desarrollo, dedican una cantidad considerable de tiempo en recolectar agua potable. Esto representa una carga para todos los miembros del hogar, pero en muchos países afecta principalmente a las mujeres y niñas. Esta carga causa estrés y tensión entre las distintas familias de un barrio y también dentro de cada familia. La mayoría de los programas que conectan a los hogares pobres a la red de agua potable lo hacen principalmente para mejorar la salud física de los beneficiarios. Sin embargo, más allá del efecto directo que esto pueda tener sobre la salud física, mejorar el acceso a agua potable puede tener importantes efectos sobre el bienestar del hogar. Por un lado, el bienestar podría aumentar: al reducir el tiempo que implica recolectar el agua, no sólo se libera tiempo que puede ser dedicado al ocio o la producción (trabajo pagado o estudio), sino que además elimina una fuente importante de estrés y tensión. Por otro lado, el bienestar podría disminuir: Si las mujeres tuvieran prohibiciones o restricciones para circular fuera de casa, liberarlas de la tarea de ir a buscar agua les quita su única oportunidad de salir, limitando una importante fuente de oportunidades de sociabilizar, lo que reduciría su bienestar.

Contexto de la evaluación

En zonas urbanas de Marruecos, donde se desarrolla este estudio, los hogares que usan grifos de agua públicos utilizan más de siete horas a la semana recolectando agua, a pesar de que estos grifos tienen una densidad relativamente alta. En nuestra muestra, 65% de los hogares sin conexión a agua potable declaran que el agua es una de sus mayores preocupaciones, 15% han tenido conflictos en la familia relacionados con el agua y 12% han tenido conflictos con sus vecinos. Por tanto, el acceso al agua

parece ser una de las principales fuentes de estrés y tensión, tanto intrafamiliar como interfamiliarmente.



Women wash laundry outdoors.

Photo credit: Aude Guerrucci | J-PAL/IPA

Detalles de la intervención

In 2007, Amendis, the local affiliate of Veolia Environnement, an international, private utility company, launched a social program that offered low-income households in Tangier, Morocco a chance to get an in-home connection to the city water system. Amendis identified three zones to work in, and then a team surveyed households within those areas to find those that were not connected to the city water system. Almost 60 percent of unconnected households relied on public taps for their water. Of the households relying on the public taps, about one in five lived close enough to the public tap to use a hose to fill water containers, but the rest had to take their containers to the public tap. Households that filled containers at the public taps spent more than seven hours a week collecting water. The 40 percent of households not getting their water from the public taps were using a neighbor's connection; these informal connections are technically illegal, but often overlooked.

Amendis offered low-income households in the three zones a chance to buy a connection to the water and sanitation network at full price, but on interest-free credit. Depending on the zone's distance from the water grid, households in that zone were offered a three, five, or seven-year loan that would be paid off at MAD 105 (US$15) per month with their monthly water bill. This is a substantial expense for these households: at the time, the minimum hourly wage in Morocco was MAD 9.6, and this likely overestimates the average wage among these low-income households as a majority of individuals were either casual workers or unemployed.

Group	Loan offer	Encouragement
Treatment	Interest-free loan from Amendis to buy a water connection, paid back at MAD 105 per month over three, five, or seven years	• Door-to-door awareness campaign to encourage households to buy a connection. • Pre-approval for the loan from the authorities. • Project officers assisted households in preparing all paperwork and identification documents required for the application. • Branch officer visited households to collect the downpayment.
Comparison	Interest-free loan from Amendis to buy a water connection, paid back at MAD 105 per month over three, five, or seven years	No application assistance given.

Because both the treatment and comparison groups were eligible for the loan program, the researchers used a randomized encouragement design to evaluate the impact of the program. The assistance that treatment group households received in applying for a connection made them much more likely to buy a water connection. The difference in the proportion of people that enroll in the program in the treatment and comparison groups enables researchers to estimate the impact of the program.

Households were surveyed in 2007, before the start of the program, and again in 2008, five months after the water connections were installed in treatment households that enrolled. Information was collected on household socioeconomic characteristics, health, hygiene practices, water collection, work and work-related conditions, time use, and social networks. In a random subset of households, the water was tested for levels of chlorine and the presence of *E. coli*. Households with children under 15 years old were asked to fill out a month-long “illness diary” to track instances of fever, vomiting, or diarrhea in the children, and children’s school participation was also tracked with surveys.

In January 2009, all comparison-group houses were informed about the program, including information on the various procedures required to apply for it, as part of a survey debrief. Administrative data on in-home water connection applications was obtained in August of 2009 to find out whether comparison-group houses had subsequently applied for a connection.

Resultados y lecciones de la política pública

Como los hogares que participaron tenían ya acceso a la red de agua potable mediante grifos públicos, no se encontraron mejoras en la calidad del agua que consumieron. A pesar de un significativo aumento en la cantidad de agua consumida, no se encontraron cambios relativos a enfermedades contraídas por el agua. Sin embargo, los hogares están dispuestos a pagar una considerable suma de dinero para tener un grifo privado en casa. Conectarse a la red de agua potable, trae importantes ganancias de tiempo, pero no trae aumentos en la participación en el mercado laboral, el ingreso o en los logros escolares. Al parecer, el tiempo ganado es dedicado al ocio y las actividades sociales. Además, dado que el agua es una fuente de tensión entre los hogares, la integración social parece verse mejorada debido a las conexiones particulares. En conclusión, a pesar del costo financiero, la utilidad y la felicidad reportada por los hogares, mejora considerablemente cuando se conectan al sistema de agua potable.

Devoto, Florencia, Esther Duflo, Pascaline Dupas, William ParientÌ©, and Vincent Pons. 2012. "Happiness on Tap: Piped Water Adoption in Urban Morocco." American Economic Journal: Economic Policy 4(4): 68-99.