

Researchers

Mushfiq Mobarak
Yale University

Raymond Guiteras
North Carolina State University

Shyamal Chowdhury
University of Sydney

Marcella Alsan
Stanford University

Timeline

2008-2013

Sample Size

1,900 households (Migration Study, Bangladesh, 2008) 3,800 households (Migration Study, Follow up, Bangladesh, 2013), 8,400 households (Sanitation Study, Bangladesh, 2012-2013)

Research Implemented by IPA

Yes

Does Sanitation Behavior Migrate? Evidence from Bangladesh

Abstract

Poor sanitation is estimated to cause 280,000 deaths per year, and may also contribute to serious long-term health conditions, despite the existence of simple, effective solutions. As more people migrate to urban areas, where sanitation infrastructure is often weak, there is concern that they will bring back a poor sanitation habit—open defecation—to their home villages. In Bangladesh, researchers evaluated the impact of seasonal migration on sanitation behavior in home villages and whether various approaches to reduce open defecation and increase latrine use affected migrants' sanitation habits. Results showed that open defecation increased substantially in migrant households, but some sanitation programs offset this increase.

Policy Issue

Sanitation behavior is critical for safeguarding health. According to 2014 estimates, lack of safe water, inadequate sanitation, and poor hygiene causes 842,000 deaths in low- and middle-income countries each year.[1] In rural areas, some programs focused on changing hygiene and sanitation behaviors have led to the adoption of better habits. However, some people may leave behind good hygiene habits when they migrate to urban areas. Migrants often live in densely populated slums, which lack basic water and sanitation services; in 2010, 27 percent of the urban population in low-income countries lacked access to improved sanitation facilities.[2] In these environments, it may be more difficult to maintain good hygiene habits, and due to overcrowding, disease outbreaks can spread quickly. This

research provides new evidence on how migration affects sanitation habits and whether migrants can preserve improved hygiene behavior as they move from rural to urban areas.

Context of the Evaluation

This research was conducted in rural areas of Tanore and Rangpur in northwest Bangladesh, the country's poorest region. Although sanitation coverage has increased dramatically in rural Bangladesh, these areas lag behind the rest of the country. For example, prior to the start of the Tanore study, 31 percent of households surveyed reported that they either lacked a latrine or used an unimproved latrine, and only 50 percent had regular access to an improved sanitation facility.

Due to the seasonal nature of rice cultivation, the main economic activity in Tanore and Rangpur, these districts are a potential source of migrant workers. Seasonal migration could help rural families increase their income, especially during the pre-harvest lean seasons, and reduce the risk inherent in an agricultural economy. However, previous research has shown that only about 5 percent of families in Rangpur receive seasonal remittances, indicating that households may face barriers preventing them from taking advantage of opportunities to migrate.

Details of the Intervention

Researchers conducted two randomized evaluations to understand the sanitation habits of migrants after they returned to rural areas. The first evaluation, which incentivized migration, took place in Rangpur in 2008, and the second evaluation, which focused on improving sanitation habits, took place in Tanore in 2012. Researchers followed up with participants in both studies to understand the long-term effects on migrants' sanitation habits.

Migration study: In the first evaluation, researchers partnered with Palli Karma Shohayok Foundation, a microfinance organization, to offer small grants to incentivize randomly selected households in Rangpur to send an individual to a town or city to earn income during the hungry season. The small grant covered the cost of one round trip to a migration destination. Some migrants were also randomly assigned a destination, while others were allowed to choose where to go. Researchers returned to Rangpur in 2013 to gather new data on the hygiene behavior of study participants, in order to evaluate whether migrants changed their sanitation behavior.

Sanitation study: In the second evaluation, researchers tested various approaches to increasing toilet use and reducing open defecation in 380 communities in Tanore. One randomly selected set of communities received an awareness campaign that emphasized the problems caused by poor sanitation, behavioral change, and community mobilization. A second set of communities received a subsidy for the purchase of hygienic latrines, in addition to the awareness campaign. A final set of communities received training and technical support on hygienic latrine construction. Researchers returned in 2014 to collect new data on the migration behavior of those study participants, in order to evaluate how the

sanitation program affected hygiene behavior among migrants.

Results and Policy Lessons

Together, the two evaluations indicated that seasonal migration to urban centers, particularly small towns that typically lack adequate sanitation services, increased open defecation when migrants returned home. Sanitation programs that provided subsidies and mobilized communities to reduce open defecation were somewhat effective in improving sanitation behavior for returning migrants.

Migration study: Seasonal migration to urban areas led to higher rates of open defecation when migrants returned home. Among adults in households that received and used the small grant to migrate in 2008, 43.6 percent practiced open defecation at home five years later, compared to 19.9 percent of adults in households who did not receive the incentive to migrate. Open defecation rates increased more for households with migrants who went to high open-defecation areas such as small towns (where the rate of open defecation among migrants was 40.2 percent) as opposed to metropolitan areas with relatively low rates of open defecation (20.6 percent).

Migrants whose households owned a toilet at the start of the study were 9.8 percentage points less likely to practice open defecation after they returned home than the 48.6 percent of adults in migrant households that did not own a toilet in 2008.

Sanitation study: While the awareness campaign alone did not decrease open defecation among migrants, the awareness campaign combined with the subsidy decreased open defecation rates among migrants by 11.1 percentage points, compared to 22.1 percent among migrants in comparison households. The awareness campaign along with both the subsidy and support for latrine construction had a similar effect, decreasing rates of open defecation among migrants by 10.0 percentage points, compared to the same 22.1 percent among migrants in comparison households.

Migrants from households that invested in latrines as a result of the awareness-raising programs were less likely to practice open defecation when they returned to rural areas. Researchers estimated that a 10 percent increase in latrine ownership led to a 5.8 percent reduction in open defecation.

Sources

[1] “Investing in Water and Sanitation: Increasing Access, Reducing Inequalities.” 2014, World Health Organization.

http://apps.who.int/iris/bitstream/10665/139735/1/9789241508087_eng.pdf?ua=1.

[2] Hawkins, Peter, Isabel Blackett, and Chris Heymans. “Poor-Inclusive Urban Sanitation: An Overview.” 2013, The World Bank.

<http://www.wsp.org/sites/wsp.org/files/publications/WSP-Poor-Inclusive-Urban-Sanitation-Overview.pdf>

April 05, 2016