



Emory Global Health Connection

Building Bridges for Better Health

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The Andilaye Project: A Demand-Side Sanitation and Hygiene Intervention in Amhara, Ethiopia

Millions of people in Ethiopia are at risk of water, sanitation, and hygiene (WASH)-related infectious diseases, including diarrheal-causing pathogens and neglected tropical diseases (NTDs), such as soil-transmitted helminthiasis, schistosomiasis, and trachoma. The government of Ethiopia has made control and elimination of these diseases a priority. “Much of the disease burden in the country is preventable, and a considerable proportion is directly related to unsafe water, inadequate sanitation, and poor hygienic practices,” states a report from the Ethiopian Federal Ministry of Health. Amhara is a region of Ethiopia in which several NTDs are hyperendemic, and while progress has been made to address poor WASH practices, behavioral slippage (i.e., relapse to unimproved WASH practices) is common.

Andilaye, Amharic for “*togetherness*” is a project that seeks to develop and assess the effectiveness of an enhanced, demand-side sanitation and hygiene intervention on sustaining behaviors for the control of NTDs and enteric diseases endemic to Amhara, Ethiopia. The principal investigator of the project, Dr. Matthew Freeman, is Associate Professor of Environmental Health at the Rollins School of Public Health with joint appointments in the Departments of Epidemiology and Global Health.

The *Andilaye* intervention is informed by rigorous and theoretically driven [formative research](#) that was completed in February 2017. In addition, an [intervention design workshop](#), held in Bahir Dar, Ethiopia in April 2017, allowed key stakeholders from the Ethiopian Federal Ministry of Health, the Amhara Regional Health Bureau, and relevant local health departments and non-governmental organizations to provide feedback on intervention components they felt were most feasible and impactful. Lastly, behavioral trials conducted during May 2017 tested aspects of the *Andilaye* intervention in order to determine promising intervention approaches relevant to the Amhara context. “Designing a contextually appropriate intervention that addresses why communities face challenges sustaining improved sanitation and hygiene practices is exactly what this project is about,” says Dr. Freeman. “It’s an amazing opportunity to work closely with government [leaders] and other stakeholders to develop a scalable approach to address the disproportionate effect NTDs have in certain communities.”

The overarching intervention motto, ‘*Together we can be a strong, caring, healthy community,*’ and related intervention components offer an aspirational message

that emphasizes the need for collective action to make positive change in one's community. "This intervention uniquely brings improved WASH and NTD-preventive behavioral promotion together by focusing on positive, community-oriented motivators of behavioral change," Dr. Freeman adds.

Intervention activities operate at four levels – woreda, community, group, and household – with key activities including community mobilization and commitment events, community conversations and household counseling visits with caregivers. Behavior change materials (e.g., household goal cards and flipbooks) were illustrated by a local Ethiopian artist and target 11 specific behaviors and practices related to sanitation, personal hygiene, and household environmental sanitation. Dr. Freeman explains, "Through goal setting and barrier identification, these materials promote achievable incremental improvements and incorporate strategies that facilitate behavioral maintenance."

Intervention activities for *Andilaye* have been underway since September 2017. Funded by the World Bank, International Initiative for Impact Evaluation (3ie), and Children's Investment Fund Foundation (CIFF), the *Andilaye* project is a three-year impact evaluation designed as a cluster randomized control trial with endline evaluation scheduled for summer 2019. The study enrolled 50 clusters (i.e., communities), of which 25 were randomly allocated to receive the *Andilaye* intervention. Longitudinal data collection from approximately 30 households within each cluster will allow the team to examine changes in sanitation and hygiene attitudes, as well as other behavioral antecedents and outcomes - including social norms surrounding sanitation and hygiene. The study

will also track self-reports of diarrhea, and use validated scales to assess water and sanitation insecurity, mental health, and collective efficacy. "This evaluation will help identify if a demand-side sanitation and hygiene intervention such as *Andilaye* can support large scale policy implications aimed at reducing environmental health inequities and improving the lived experience of those impacted by NTDs and other enteric infections," says Dr. Freeman. "This is something my research group strives for in all of our work."

The *Andilaye* project is managed by Maryann Delea, a lead staff researcher at the Rollins School of Public Health and PhD candidate at the London School of Hygiene & Tropical Medicine. Fellow Rollins School of Public Health graduates and staff researchers, Jedidiah Snyder and Gloria Sclar, provide technical guidance on the project's formative research phase, intervention design and implementation, process and cost evaluations, and general project coordination and technical support. Emory Ethiopia's, Dr. Abebe Gebremariam, is the project's local principal investigator and oversees field activities implemented by Emory Ethiopia staff based in Amhara (Mulusew Belew, Resom Berhe, Mulat Woreta, and Kassahun Zewudie). Craig Hadley (Anthropology), and Tom Clasen and Bethany Caruso (Environmental Health) are co-investigators. A number of Rollins School of Public Health students are also involved on the project through various roles (Christina Braccio, Frederick Goddard, Molly Linabarger, Ashlin Rakhra, and Hiwote Solomon). For more information on the project, please visit the Freeman Research Group [website](#).