

Collaborating with Female Community Health Volunteers in Support of Clean Cooking Programs in Nepal

This policy brief highlights lessons learned from partnering with female community health volunteers (FCHVs) as part of a recent research study: *Maximizing the Health Benefits of Clean Household Energy in Peri-Urban Nepal*. In [related briefs](#),¹ we examine the pathways and potential rewards of transitioning to electric cookstoves and scaling up biogas; this brief explores in more depth the role of the study's partnership with FCHVs in project activities and outcomes, and their potential in supporting national-wide efforts to scale clean cooking.

Key messages

- Female community health volunteers (FCHVs; community-based health workers who support maternal and

child health programs in Nepal) are well-positioned by the nature of their work and their social roles to help identify and overcome local barriers to household adoption of clean cooking technologies and fuels.

- During a 1.5-year study in the Kavre district, FCHVs proved to be highly effective at promoting the uptake and use of clean cooking technologies within communities, as well as at collecting information to assess the impact of intervention activities on the welfare of participating households.
- Unlocking the full potential for FCHVs to support the deployment of clean cooking technologies will require expanded training, and programmatic, organizational, and policy support.



Introduction

Efforts to increase access and use of clean cooking technologies will be a critical component of improving health and quality of life in Nepal. More than half (62%) of all households in the country rely on fuelwood as their primary source of cooking energy.² High pollutant emissions from these sources have led to high indoor and outdoor air pollution, making household air pollution the third leading cause of early mortality and years of life lost in Nepal.³

Scaling up clean cooking programs necessitates ways of identifying and addressing local and community-level barriers that affect uptake. Achieving this will require a network of partners that can implement national program strategies, provide local insights to refine these strategies, and respond to local dynamics. Relative to other health

and energy programs, local-level support will be especially important for clean cooking efforts, given the widely documented technical and behavioral challenges affecting these transitions.

Female Community Health Volunteers (FCHVs) are community-based health workers recruited for the purpose of supporting the implementation of maternal and child health programs. FCHVs receive minimum compensation: a daily allowance of ~475NPR (US\$4) when they attend mass immunization days, training, and meetings, and a dress allowance (blue saris with an FCHV logo on it). For more than three decades, FCHVs have played an important role in successfully supporting multiple national health initiatives in Nepal, by implementing health promotion activities, dispensing health commodities, and providing treatment and referral services to families.⁴ The unique skill

set of FCHVs, their standing within local communities, and the scale at which they are deployed make them important allies in the effort to achieve universal access to clean cooking in Nepal.

This brief summarizes lessons learned from partnering with FCHVs as part of *Maximizing Benefits of Clean Cooking in Peri-Urban Nepal*, a multiyear study aimed at increasing the uptake and assessing the impact of clean cooking technologies in peri-urban households.⁵ We describe the role that FCHVs played in helping to increase awareness of and access to clean cooking technologies—and explore their potential role as part of a national clean cooking strategy. As implementing partners in the study, measuring the effect of FCHVs on study outcomes was not a component of the study design or plan; rather their effect was noticed over the course of the study because of its impact.

Box 1. Overview of FCHV study activities

During this study, trained volunteers combined health and energy outreach and onsite care for families in their communities by:

a. Conducting promotional activities

- FCHVs delivered informational and promotional materials developed to support household decision makers in determining whether to buy clean cooking appliances, and made introductions between households and cookstove sales agents. FCHVs also led campaigns to provide information on induction cooktops and installation of biogas units.¹

b. Supporting households' acquisition of clean cookstoves

- FCHVs led sign-up campaigns for purchasing appliances, and often delivered them to households.

- FCHVs organized credit and savings groups from existing mothers' groups to help provide financial support to households to purchase clean cookstoves.

c. Collection of households' energy and health data

- Socioeconomic and energy-use data collected by FCHVs provided valuable information on households' energy needs, use practices, and preferences, as well as current barriers to adoption of clean cooking technologies.
- Project staff trained FCHVs to assess household electric wiring to help determine whether upgrades would be needed to accommodate and safely operate cooking appliances.
- FCHVs also conducted blood pressure measurements, as part of their role as trained community health workers.

¹ The FCHVs' door-to-door campaign and work to promote the procurement of clean stoves—through education, demand collection (sign-up campaigns), and collaboration with a sales agent—were major components of supply-side management strategies to promote the uptake of induction cooktops. The campaign and work led to the sale of 140 induction stoves and the installation of 20 new biogas digesters. Before the induction cooktop market was fully developed, FCHVs helped households purchase induction cooktops, pots, and pans from vendors outside the study area and delivered them to buyers, and provided training on how to use the stoves effectively. Also, retail store owners (n=3) and marketing/sales agents (n=6) who were trained in selling electric appliances sold an additional 30 induction stoves to households in the community.

Observations

As local community members, FCHVs can effectively communicate the costs, benefits, and trade-offs of clean cooking technologies to households. A central role of FCHVs to date has been to conduct promotional activities in support of broader national initiatives, by visiting households and organizing community groups. Their success is likely attributable to their close relationship with the households and communities they serve. Most FCHVs are themselves household decision makers and are selected by the community mother's group for health (MGH), a group of women active in different social and health activities within their locality.⁶ The average age of FCHVs is 38 and many have served their communities for more than two decades.

During the study, activities implemented by FCHVs played a critical role in promoting uptake of clean cooking appliances. **Results from the study⁷** suggest that understanding the costs and trade-offs of energy transitions are important for households to feel comfortable investing in clean cooking appliances and using them regularly. **During this study, campaigns led by FCHVs accounted for more than 80% of all new electric stove purchases—far exceeding sales by staff of local shops.**

FCHVs are community organizers with experience in promoting community investment. Access to finance is among the largest barriers to adoption of clean cooking. FCHVs

have a history of organizing communities to help reduce financial barriers. For example, they may assist members of their MGH in forming savings and credit groups, and then support MGH members in applying for loans from the group fund, at interest rates established by their own members.

During this study, FCHVs developed two savings and credit groups to support purchases of LPG cylinders and induction cooktops. The group members gave each other loans at interest rates of 12%, substantially lower than the 16%–21% rate offered by the nearby bank and microfinance company. The groups also provided loans to three members for income-generation activities, as well as capital to businesses to stock clean cooking energy appliances.

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Kaffledi Clean Fuel Kitchen Saving and Credit Group, Panchkhal, Kavre, Nepal.



Women run a clean cooking technologies store supported by FCHVs and savings and credit groups in Mandandeupur, Kavre, Nepal.

FCHVs are an extension of the health-care system and thus can play an important role in tracking the health benefits of clean cooking programs. FCHVs bridge health-care gaps, and help track and reduce the country's hypertension burden, through conducting educational programs, screening blood pressure, and serving as a referral service for counseling or treatment. In the study, FCHVs played an important role in monitoring the blood pressure of more than 1,100 primary cooks. This data was used to assess associations between clean cooking interventions and changes in blood pressure.

Going forward, these health caregivers may be able to provide unique, localized perspectives on community health and household needs, and identify potential mitigations and collaborations to achieve a better quality of life.

FCHVs are deployed at a scale that can support national programs. This study was the first to pilot this joint energy-health outreach approach in Nepal. Eight volunteers from the Kavre district participated in the research. More broadly, FCHVs are the primary interface between national health programs and households. As of 2017, there were about 52,000 FCHVs deployed across Nepal.⁸ Each FCHV



A FCHV measures blood pressure.

serves one ward consisting of ~~some~~ 50 to 200 households.⁹ Since their inception in 1988, FCHVs have been mobilized to support numerous national health initiatives, including family planning, prevention of childhood diarrhea, deworming, prevention and treatment of childhood pneumonia, distribution of Vitamin A and iron supplementation, and polio campaigns.

Summary and Calls to Action

It is clear that the dedication of FCHVs and their work in the community has helped achieve health goals and increase the survival of mothers, newborns, children, and adolescents. Their engagement in the study described here demonstrated that these health care workers are well-positioned to support clean cooking solutions.

Unlocking the full potential for FCHVs to support the deployment of clean cooking technologies will require expanded training and defining of their roles, responsibilities, and potential compensation; collaborative learning between health workers, the government, and nongovernmental organizations; and policy development to encourage cross-ministry partnerships at the national, regional, and community levels.

To best leverage the strengths of these workers, we recommend the following:

- An integrated health and energy training program should be developed in collaboration with FCHVs.
- Incentives and compensation should be standardized to sustain FCHV engagement and their professional development.
- Communities with well-established and interested FCHV teams should be engaged as pilot areas for developing clean cooking strategies.
- The Ministry of Forests and Environment, Ministry of Health and Population, and Ministry of Energy Water Resources and Irrigation should provide support for developing this program.



A FCHV measures blood pressure after the completion of the study (and during the COVID-19 pandemic), using the same tool and technique as during the study.

Notes

1. <https://www.cleancookingalliance.org/news/05-06-2021-nepal-health-demonstration-project-policy-briefs.html>
2. Energy Sector Management Assistance Program (ESMAP), World Bank, *Nepal—Multi-Tier Framework for Measuring Energy Access Household Survey (MTF)* (2017).
3. Institute for Health Metrics and Evaluation, *Global Burden of Disease* (2019).
4. Resham Bahadur Khatri, Shiva Raj Mishra, and Vishnu Khanal, "Female community health volunteers in community-based health programs of Nepal: future perspective," *Frontiers in public health* 5 (2017): 181.
5. A more detailed description of the results and methods used in the study can be found in the [full report \(https://www.cleancookingalliance.org/resources/606.html\)](https://www.cleancookingalliance.org/resources/606.html)
6. Khatri RB, Mishra SR, Khanal V. Female community health volunteers in community-based health programs of Nepal: future perspective. *Frontiers in public health*. 2017 Jul 21;5:181.
7. <https://www.cleancookingalliance.org/sector-resources/resource-database/628.html>
8. Ministry of Health and Population, *Annual Report* (Kathmandu, Nepal, 2013).
9. A FCHV typically serves 1,000 people in the plains (Terai), 350 in the hills, and 250 in the mountains

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info@cleancookingalliance.org