

## **Publication**

Acceptance and uptake of improved biomass cookstoves in Peru: learning from system level approaches to transform large-scale cooking interventions

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Improved biomass cookstoves (ICS) are cooking technologies that increase wellbeing and reduce household air pollution. With the goal of identifying factors influencing ICS acceptance and uptake at five system levels (intrapersonal, interpersonal, community, institutional, and policy), we carried out a qualitative study in three regions in Peru. We conducted 32 focus group discussions (243 ICS users) and 26 semi-structured interviews with key stakeholders, applying a combination of two system-level frameworks for analysis: the socio-ecological model and the ICS adoption domain. Enabling and impeding factors at each level were closely related to each other. Decisions made by policy makers - often centralised and not considering local/regional realities - strongly influenced acceptance and barriers at lower levels. ICS acceptance and uptake tended to be low when ICS users were not involved from the start. Most ICS programmes focused on stove distribution outputs, without considering community needs, such as training on ICS building, maintenance and repair, or issues related to spare part availability, which is a strong barrier to sustained uptake of ICS. Using a combination of models that allows one to examine facilitators and barriers at multiple levels, as well as the interactions of those levels, was useful in assessing potential improvements to intervention design, facilitating programme success, preventing unforeseen programme adaptations, and improving cost-effectiveness of interventions.

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