Transitional Improved Pit Latrine

Video Transcript

Growth in unplanned peri-urban areas is accelerating in Malawi. This rapid urbanization poses a major challenge in providing basic health and utility services. One of the big questions is how to separate people from human waste.

In these areas, the majority of households use traditional latrines, which they build themselves or with unskilled laborers. Though these latrines are affordable, they are difficult to clean, can often collapse, and rebuilding them places an additional burden on households and uses up valuable space.

Improved latrines—those with lined pits, cement slabs, and roofs—are being built by local masons. However, these require more building materials—like cement, sand, and burnt bricks—making them too expensive for most households.

Acknowledging the ability of the private sector to provide quality health products and services, the SHOPS project brought together local masons and sanitation experts to redesign a more affordable improved latrine, thereby helping households to transition from traditional to improved latrines.

The partners jumped at the opportunity to re-think latrines and came up with several new designs. These designs were combined into one latrine that was tested in peri-urban areas in Lilongwe and Blantyre. Feedback on the design from masons, households, and sanitation experts led to further improvements, creating a latrine that is desirable, durable, and affordable.

The design starts from below ground. Existing improved latrines often use square or rectangular pits. However, the partners realized that a circular pit lining is stronger and requires less material. Wells have always been dug and lined this way for the same reason.

Existing improved latrines also line the entire depth of the pit, but masons pointed out that only the soil near the surface is prone to collapse. In the new design, only the top one and a half meters of the pit is lined with bricks and cement to prevent collapse, and enable the pit to be emptied down to the level which the current pump can reach.

With this strong and affordable substructure, the challenge then became how to build a superstructure that was also affordable and desirable. To do so, partners looked at how houses are built in Malawi. Often households build little by little, making improvements or additions when they are able to afford them. Applying the same thinking to latrines, partners sought to spread out the cost of the latrine over time.

To do so, the new design uses burnt bricks which are viewed as more modern and desirable. However, instead of using cement mortar to secure the bricks, the design uses mud mortar. The

corners give strength to each wall, and cement pointing can be added later to further strengthen the walls, making them more resistant to rains, and more modern-looking.

Like cement mortar, wooden doors and metal roofs are also expensive. These can initially be made out of local materials—like a reed mat for a door and a grass thatched roof—and later be replaced with a wooden door and metal roof once the household is able to afford them.

Even the slab is made with a hole that can be temporarily covered, later allowing for a vent pipe to be added.

The end result looks the same as the existing improved latrines, but costs less and can be paid for over time. It is a latrine that masons are already starting to promote, helping peri-urban households transition from unsafe traditional latrines to the security and status of a modern improved latrine.

We call it the “Transitional Improved Pit Latrine,” and we believe it is capable of tipping the balance from traditional to improved latrines in peri-urban Malawi.