

Getting South Africans to buy into the next big thing in medicine

South Africa has introduced the world's first medicine-dispensing ATMs but only a fourth of patients who could be using them actually are.

By [Nelisiwe Msomi](#) 17 May 2019



In March 2018, [the country rolled out the drug-dispensing units at six sites in the Free State and Gauteng](#), where the machines can be found in shopping malls in Alexandra, Soweto and Diepsloot. The apparatuses work just like ATMs except instead of releasing cash, they pop out medication for people with chronic conditions such as epilepsy, diabetes, high blood pressure or HIV.

Ideally, units like this will make it easier for patients to pick up their medication and keep them out of overburdened clinics. And because people with a range of conditions — not just HIV — use the devices, it means people don't have to fear being stigmatised when they are seen to be using the machines.

With their own generators, the medicine ATMs are also load-shedding proof.

But to use the machines, patients who have been doing well on treatment have to be referred from their local health facilities. Despite 28,459 patients regularly using ATMs, not enough patients are getting referral letters from health workers, which means the machines are only servicing a fraction of those they could, according to a recent report by the organisation behind the ATMs, Right to Care.

“There are many stable patients but fewer than we can manage are being decanted [from their health facilities],” says Fanie Hendriksz, managing director of Right ePharmacy, which handles technology-based pharmacy solutions for Right to Care. Hendriksz's team regularly meets with district health teams and partners with the health department to train nurses and doctors on why the new ATMs might be an option for their patients. Right ePharmacy employees are also stationed at referring clinics to help answer questions

But a lack of patients means the machines aren't delivering the value for money that they could be.

In its latest study, Right to Care looked at how convenient and cost-effective its ATMs in Alexandra worked

as compared to other ways South Africa uses to making picking up medication easier for chronic patients: [Adherence clubs](#) and fast-tracked clinic lines.

As part of adherence clubs, stable patients meet outside of clinics and hospitals to collect their medication at places such as community halls, churches and even other patients' houses. Meanwhile, some clinics let long-time patients collect their medication in separate, shorter queues to get patients in and out more quickly.

On average, ATM users got their medication within 15 minutes as opposed to an average of two hours via adherence clubs. Clinic waiting times were almost double that, the Right to Care report says.

But the clubs beat out the high-tech machines when it came to cost. The report found that it cost R59 to provide antiretrovirals with the community-based model. For the new ATMs to be as cost-efficient, they would have to serve at least 550 patients per day — targets the machines just aren't hitting yet despite being placed in high-density areas.

The dose-dispensing devices did, however, protect patients from stockouts. The system can predict a stock shortage a week in advance and alert Right to Care's system of the need to restock.

Only 5% of ATM patients reported experiencing a stockout in the last year. A 2019 study published in the journal PLOS ONE uncovered about 1 449 instances in which HIV or TB drugs were not available at public sector facilities. In a quarter of these cases, patients were either left with incomplete treatment or nothing at all.

The country's latest HIV plan aims to have 90% of all people taking antiretrovirals virally suppressed by 2022, meaning that they have taken their treatment so well that it's brought the levels of HIV in their blood down to almost undetectable levels. People with undetectable viral loads cannot transmit the virus, research shows.

Patients who use the ATMs have adherence rates as high as 96%, according to Hendriksz. He explains the convenience of collecting medication in three minutes is part of why users do not default.

To increase the numbers of patients using the machines, Right ePharmacy plans to expand the types of medication ATMs can dispense, including expanding it to include other chronic conditions and contraceptives. In the future, the contraptions may also begin providing basic health screening services. Two ATMs are also going to be moved to busy clinics to help ease overcrowding, Right ePharmacy says.

While the future of more sites being built is uncertain, Hendriksz is hopeful that health workers will work with them.

He says: "It's still a new innovation and change management takes time."