

Phulukisa helps protect South Africa's most vulnerable during the COVID-19 pandemic



Challenge: COVID-19 has forced lockdowns and economic uncertainty in South Africa, putting their most vulnerable populations at risk

The COSUP project operates 17 drug treatment centers in South Africa, but as the virus made people wary of contact with one another, there was concern that the virus would spread within COSUP locations or patient numbers would fall.

Solution: COVID-19 screening made easy by Phulukisa Health Solutions and Microsoft Azure

Microsoft partner Phulukisa Health Solutions designed a COVID-19 screening solution for the COSUP project to rebuild trust between patients and healthcare workers.

Results: renewed trust between patients and providers, and an increase in program participants

Since the swift implementation of COVID-19 screening, the COSUP project has seen an increase in patients, stemming the viral spread and improving hundreds of lives daily.

Homelessness and drug addiction have been longstanding issues that affect populations across the world. Now, with the COVID-19 pandemic turning everyone's lives upside down, these vulnerable populations are often the ones who are hit the hardest. This has been particularly visible in South Africa.

To address homelessness and drug addiction in their community, the [University of Pretoria Family Medicine Department](#) launched the Community Oriented Substance Use Programme, or COSUP project, in 2016. According to the [University of Pretoria's website](#), the goal of the project is "to provide meaningful and effective community-based support for people who use, support, or are affected by harmful substance use. It focuses on evidenced-based approaches aimed at restoring functionality, improving health, and reducing the social destruction of harmful substance use."

Over time, the COSUP project has grown to staff and maintain 17 treatment centers across the Pretoria region. With the COVID-19 lockdown, homeless people were accommodated in 24 shelters accommodating up to 2300 people. At these centers, patients can receive free shelter, food, and treatment to wean themselves off of their drug dependencies. The program combines substitute drug therapy with direct observational therapy from medical professionals, effectively carving out a path to sobriety for patients who, in the past, have been shunned, isolated, forgotten, and ignored.

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— Raymond Campbell, CEO, Phulukisa Health Solutions

However, just as the program was starting to feel established, COVID-19 threw a wrench in it. A pervasive mistrust of others quickly spread across Pretoria as people desperately tried to fight an invisible enemy, and this newfound mistrust made it far more difficult for medical workers to connect with and treat these vulnerable populations. This led to the establishment of shelters where homeless people are cared for. If the COSUP project was going to stand a chance in a world struggling to adapt to COVID-19, it needed to find a way to screen incoming patients for the virus quickly and effectively to rebuild trust between patients and practitioners.

COVID-19 screening made easy by Phulukisa

Thankfully, the COSUP project found a partner who could deliver this service in [Phulukisa Health Solutions](#). Phulukisa is a Pretoria-based company led by CEO Raymond Campbell who was a practicing medical professional for 10 years before focusing on Phulukisa. “The University of Pretoria is my alma mater and we are based in the same city. We share the same goal, improving the health of our local, most vulnerable communities, so partnering together was a no-brainer,” explains Campbell.

Following the outbreak of COVID-19, Phulukisa quickly recognized the need to rebuild trust between patients and providers at COSUP treatment centers. Within one week, Phulukisa had revamped their innovative patient screening solution to test for COVID-19, enabling quick and easy data collection via thermometers and

oximeters, generating results for patients almost immediately. Within two weeks, the solution had been deployed to all 17 COSUP locations and 24 homeless shelters.

“Scaling the solution was so easy because it’s all built on [Microsoft Azure](#),” explains Campbell. “It gives us access to the world’s best super-computer whenever and wherever we need it, and we only have to pay for what we use. It gives us the results we require in seconds; normally, it would take days or weeks. It also gives us insights and reports through [Power BI](#). It’s like magic to our customers and partners, but to us, it’s our secret weapon.”

Phulukisa’s solution

Phulukisa’s overarching platform, [Population Health Management as a Service](#), is available on Azure Marketplace and offers modular solutions to fit a customer’s specific needs. At its heart, the solution is an award-winning health-risk assessment platform with front-end data collection that feeds into a powerful back-end, built on Microsoft Azure and using Microsoft Azure AI, to unlock new health insights, generate reports, and drive down risk. The Phulukisa platform allows for rapid and inexpensive screening of patients wherever they are, be it in a COSUP treatment center, a homeless shelter, or in their own homes. The solution also improves information flow and serves as a highway for managing patient care. Finally, it enables physicians to utilize their resources more efficiently and easily integrates patient screening results into existing healthcare management systems.

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"I could not imagine building our platform without Microsoft Azure," recounts Campbell. "We partnered with Microsoft from the very beginning, literally at our company's inception, and they have been an invaluable partner ever since. Whenever we feel like we've hit an insurmountable obstacle, Microsoft helps us overcome it. We are good at thinking up good ideas and solutions, then Microsoft delivers the tools to bring things from our mind into reality."

Not only did Microsoft provide the technological tools to support Phulukisa's solution, it also provided some much-needed financial support in the form of a COVID-19 relief grant, enabling Campbell and his team to continue pushing forward despite the uncertain times.

Much like Phulukisa's partnership with the University of Pretoria, Campbell says their partnership with Microsoft was a no-brainer. Because Phulukisa works in the healthcare industry, security and regulatory compliance were top considerations while developing their platform. When it came time to select a cloud provider, Campbell says they saw no other real option besides Microsoft Azure: "With the built-in, world-class security of Microsoft and the ability to not only meet, but exceed regulatory requirements, Azure was an easy choice."

Making a difference in hundreds of lives daily

With Phulukisa's solution in place at every COSUP treatment center and homeless shelter, patients and healthcare workers alike can finally feel comfortable interacting with one another again.

Day by day, trust is being rebuilt in Pretoria and patients are returning. Since the outbreak of COVID-19, Campbell notes that the number of patients at COSUP centers has increased. The work is far from done, but he says it's a step in the right direction.

Campbell notes that each of the 17 COSUP centers and homeless shelters sees hundreds of patients a day, and now they aren't just receiving support towards their sobriety, they're also receiving support against COVID-19. The goal is to reduce the number of sick, undiagnosed people on the street to slow the spread of the virus, while still supporting drug users on their journey towards sobriety.

"We are so excited for the future and the healthcare solutions that we're going to be able to provide," adds Campbell. "COVID-19 has highlighted the fact that you cannot address the world's biggest problems without technology – technology is going to play a big role in the future of healthcare, and I think everyone is seeing that now. Thankfully, we know that Microsoft will be supporting us every step of the way on our innovation journey."



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