

## InterSystems Case Study: Sinikithemba



### Delivering quality care in a challenging environment

How do you deliver better care to a growing number of patients in an increasingly pressured environment? At Sinikithemba HIV/AIDS Care Centre in Durban, South Africa, staff have turned to TrakCare™ – a Web-based healthcare information system from InterSystems that helps them treat and counsel thousands of people more efficiently and attentively than ever before.

The number one priority for any medical practice is quality of care. As patient numbers grow and resources become increasingly stretched, staff must be able to access the information they require, quickly and efficiently, in order to deliver an excellent level of treatment to every individual.

Nowhere is this more true than at Sinikithemba HIV/AIDS Care Centre. Translating from Zulu as 'Place of Hope', Sinikithemba – part of the local McCord Hospital – provides extensive counselling and anti-retroviral treatments to a province with the highest and fastest growing rate of HIV/AIDS infection in the country. This work has earned the Care Centre an international reputation, and attracted the attention of major researchers from hospitals and universities around the world, including Harvard University in the USA.

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Dr Helga Holst  
Medical Superintendent  
McCord Hospital

But as South Africa experiences an ever-growing number of people living with HIV and AIDS – some six million, and counting – it’s not surprising that care practices are feeling the strain, especially those relying on paper medical records. At Sinikithemba, the sheer volume of visitors meant that patients would typically see different nurses, doctors, pharmacists and other practitioners every day, yet this caused paper records to travel extensively from department to department – and forced staff to spend precious time seeking them out. Focusing on the delivery of consistent, excellent care therefore became an uphill struggle.

In this environment, changing the working practices was not feasible. What Sinikithemba really needed was an electronic patient record system; a clinically focused solution that would enable all healthcare professionals to access a consistent log of patient information, at the touch of a button.

### The TrakCare solution

In order to tackle these challenges, InterSystems provided the clinic with TrakCare.

TrakCare is a system designed to manage both administrative and clinical activities. As a Web-based system that runs on InterSystems’ innovative database and integration technologies, it offers a comprehensive solution to the clinical difficulties faced by Sinikithemba by storing and consolidating all information about patients – from the moment they first visit the Centre.

“Our key drivers are quality of healthcare and efficiency,” says Dr Helga Holst, Medical Superintendent of McCord Hospital. “We’ve

been able to improve in both of these areas thanks to TrakCare.”

Through password-based access, all authorised users can view patient information – ranging from a T-cell count, to records of any disease

*“Ever since I started using it I don’t have to run around looking for other information from my colleagues, or from other departments.”*

Zennith Diamiini  
Administration  
Sinikithemba Care Centre



such as TB or hepatitis, to information about responses to anti-retrovirals. This, in turn, can optionally be fed into reports produced by the system for feedback to doctors, or for input into national HIV/AIDS statistics.

The interface and workflows within TrakCare can be customised, so healthcare professionals don’t need to change the way they are used to working, in order to work with TrakCare. What’s more, thanks to its ability to integrate with the key administrative systems, TrakCare can also be used to manage financial matters at the hospital – which was particularly impressive to Dr Holst: “TrakCare’s strength is that it combines the electronic patient record system with the administration system and financial system. It is by far the best we have seen.”

### Transforming care at Sinikithemba

Since implementation, TrakCare has enabled Sinikithemba Care Centre to significantly enhance the level of care that staff are able to deliver.

Where in the past much of a 15-minute appointment slot was spent seeking out patient records from different departments, care practitioners can now spend the vast majority of the time doing what they do best – providing excellent care to their patients. “The benefit for us of moving to an electronic patient record has

been the speed of access for the doctors, nurses and care workers,” confirms Jimmy Carroll, Finance Director of McCord Hospital.

Speed and efficiency are not the only benefits that TrakCare has brought to Sinikithemba’s staff. Research is also empowered, thanks to the vast amount of data collated via the TrakCare healthcare information system. HIV clinicians and researchers from world-renowned institutions such as Harvard University and Massachusetts General Hospital, send doctors and medical students to McCord Hospital and Sinikithemba, where they use TrakCare to conduct in-depth research into HIV and AIDS – such as virus resistance to medication. This is proving much simpler through the new computer system. “Having all the information that we need on TrakCare has really made things a lot easier for us,” explains Senica Chetty, a senior researcher at Sinikithemba. “It means quickly accessing lab results, pharmacy records, patient health check charts and a list of opportunistic infections. Under normal circumstances we would have to pull that information from different sources.”

TrakCare is set to deliver value beyond the walls of the Care Centre. The ability to text message patients, reminding them to visit the clinic, or to take their medication – including information about the type of medication and the dosage – will help Sinikithemba reach out into the community and bring care into the heart of people’s lives.

But of course, none of these benefits could have been achieved if the system hadn’t been easy to use. “We could quite easily adapt it to our needs,” confirms Jimmy Carroll. “This was one of the beauties of the system.”

Today, after witnessing the benefits TrakCare has brought to the clinic, parent hospital McCord is now implementing the system itself. Dr Holst believes that technology such as this will take the Hospital and the Care Centre into the next level of care delivery: “We will use TrakCare to take us into a new phase in our evolution as we enter the Information Age,” she enthuses. “The efficiency gains will be enormous as we will be able to draw all the data we need, and spot exceptions as early as possible. We’ll more easily manage past patient records, follow patients and monitor trends, monitor ward activities and theatre levels, morbidity trends, waiting time, productivity, stock losses and much more.

In the words of Dr Holst, “Our ideal is to use technology to enhance the relationship between doctor and patient, rather than replace it. I am delighted with the outcome and the benefits TrakCare has given us.”

*“Definitely TrakCare has made a tremendous difference just because it is so interactive – it is being updated and used at each point. My reporting is now far more accurate than if I was relying on just the hard copy or hand-written stats.”*

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