

Measuring the rural health

*impact*

of a game-changing mobile app

## DR NATASHA BLANCKENBERG

*Rural Individual Fellowship Award*

*University of Stellenbosch*

*Implementation of a value-based healthcare model*

*Dealing with a complicated childbirth or a patient with an aggressive cancer without the input of, or referral to, an appropriate specialist can easily cost lives. Inevitably it saps doctor morale. Which is why rural medicine family physician, Dr Natasha Blanckenberg, has chosen to study the impact of the soon-to-be ubiquitous Vula cellphone application. This app enables faster, more efficient specialist advice and referral for patients in remote rural healthcare facilities.*

She has experienced the frustration and loneliness of a rural physician, especially when there's no specialist or management input. So, it is no coincidence that she will be among the first to complete the new MBA in Healthcare Leadership at the University of Stellenbosch. Her associated research aims to quantify the impact of a fellow rural trailblazer's work.

### **Vula mobile app bringing specialist care to remote areas**

Ophthalmologist, Dr Will Mapham, developed the Vula mobile app to help with rural diagnoses, specialist advice and referral, and to provide priceless remote, case-by-case learning. The system proved so effective that 20 specialties use it with the number growing. In 2018, Vula won the Western Cape Department of Health referral tender, although it is already in unofficial use nationwide. The referral device has led to a decrease of up to 25% in the need to visit a specialist in several rural areas. Specialists from different fields donated their time to work with the Vula team to design functionality for their own disciplines. This enabled the app to scale up and include referral forms for any number of specialties.

### **Cutting down referrals**

Blanckenberg wants to study the correlation between the number of Vula app referrals and visits to specialists in

referral hospitals and quantify the drop in a decrease waiting times. "We should be able to bring about a significant drop in the number of patients who need to travel to referral hospitals to benefit from a specialist opinion," she adds. Her most recent three-year stint as a Medical Officer at Northern Cape Community Health Centres, Fraserburg and Sutherland, where a patient referral can sometimes mean a 1 600km round trip, proved instructive. Child care issues can result in women not making the trip.

"Many rural patients are illiterate, terrified and feel lost in big hospitals, causing some to refuse to go... If you can avoid sending them by using this app, that's great," she adds.

The Vula app stores the call roster input of each department in a network of secondary and tertiary hospitals, enabling instant access to the specialist on call. Blanckenberg's study will focus on the Western Cape, where there has been dramatic uptake due to the newly won Vula tender, rendering her data collection easier.

For the moment, however, she lives with her engineer husband at the South African Astronomical Observatory in Sutherland, where until 2018, she provided patient care, 24/7 emergency support and mentored nurses at two remote community health centres. She was the only doctor for 130km.

### Game-changing approach

She has followed a similar rural medicine path to Mapham, being forced to 'make a plan,' when faced with shortages of staff, essential equipment or supplies. This prompted her to collaborate with corporate donors to obtain medical equipment and supplies worth R400 000 for the remote Northern Cape community healthcare centres – and to organise alternative emergency transfers of patients when local receiving facilities were crippled by system failures. Like Mapham, she is a game-changer.

Blanckenberg chose to study for the new MBA in Healthcare Leadership after over a decade of rural work. She completed the McCord Hospital rural vocational training programme after a stint at Mseleni Hospital. Years of district hospital work followed in Kwa-Zulu Natal and Hermanus, where she completed her family medicine training through Stellenbosch University. She then worked at Nkhoma Hospital in rural Malawi. As a Medical Services Manager at Hermanus Hospital for three years she experienced hands-on healthcare leadership after years of being "in the trenches".

### Good healthcare leadership vital

"If you don't have good managers you can be the best healthcare worker in world but you're completely hamstrung," she says. Her decade of rural experience has sparked a passion to provide excellent quality, compassionate healthcare to those least able to afford it, thus, in her words, "affirming their human dignity and worth."

"I love finding creative ways to do more with less and feel most at home working in rural low-resourced settings, especially in the context of the district health system.

Past experiences have highlighted to me that even the most motivated and skilled doctors and nurses can be rendered ineffective, even crushed, by a badly run health system."

The Discovery Foundation Rural Fellowship Award will enable her to complete her research and move more quickly towards her next goal of becoming a district healthcare manager. With 0.3 medical practitioners for every 1 000 people, and 0.10 medical specialists for every 1 000 people in the public sector in 2018, the value of this duo's work becomes inestimable.

*"Patients are often illiterate, terrified and don't know where to go. If you can avoid sending them by using the Vila app, that's great."*