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Press Statement: Call for improved cellular network coverage over rural health facilities

The Rural Doctors Association of Southern Africa (RuDASA) would like to call on South African cellular network providers to prioritise the improvement of coverage at rural health facilities.

Although access to mobile telephones have helped those of us living and working in rural areas circumvent many of the challenges posed by the lack of communications and transport infrastructure, health care workers (HCWs) still find themselves in difficult situations when cellular network coverage is weak to non-existent over health facilities. The current situation for many rural HCWs is frustrating at best and at worst, life-threatening for patients. Over the past decade, mobile telephones have replaced the need for doctors to carry bleepers as hospital speed dials are now linked to personal numbers. Many regional emergency services make use of mobile telephone 'hotlines', and when an ambulance or hospital is out of network coverage it has huge implications for response times and indirectly impacts on patient survival and morbidity.

HCWs go to great lengths to overcome these obstacles; as a case in point, Dr Adam Asghar, based at Bethesda Hospital, in Northern KwaZulu-Natal, has this to say about his recent experience when providing short-term relief at another hospital:

"The signal at Itshelejuba Hospital is frankly terrible, with very patchy EDGE coverage and absolutely no 3G. The doctors who work there full-time are seriously inhibited in their ability to refer patients to higher-level care because of this - for example the outpatient department has no coverage by major networks, and thus the healthcare workers have to walk outside of the building to make a call, and sometimes wait outside for a response from the referral institution or emergency medical services!

"Liaising with network providers to log coverage queries can definitely bring about change, but this requires time, effort, and a lot of patience. Individual network engineers have, in general, been sympathetic to our plight, but it is clear from the response times (six months from logging a query to a site visit at Bethesda Hospital), that addressing problems in underprivileged rural areas have not been put high on their priority list by their managers.

"It is the same cycle of 'infrastructural violence' that continues to disadvantage the disadvantaged. Just as a pot-hole in Umhlanga will be filled in a matter of days, whilst a pot-hole in Ubombo steadily becomes a crater which incapacitates an ambulance, so urban areas have universal high-capacity 4G/LTE cellular coverage, whilst critical rural health facilities lag behind on network technology that is unreliable, and two generations old."

Many remote rural primary health care clinics and district hospitals have direct access to doctors and specialists at regional hospitals via 'hotlines' to mobile telephones. Such access not only reduces waiting times for voice consultations, and allows sharing of salient investigations (e.g. X-rays) via multimedia messaging/mobile internet, but is also life-saving during emergencies. Laboratory results and healthcare resources have also become more accessible through web-based applications that require a mobile internet connection, and when there is a breakdown in facility telecommunication systems, doctors and nurses are using their personal telephones to obtain patient results, and consult guidelines.

Admittedly, some rural healthcare facilities are based in topographically-challenging areas, but cellular network providers have the technology to surmout this problem. Addressing this inequality

in infrastructure will require prioritisation by Radio Planning executives at head offices of cellular network providers. Engineers will then be empowered to timeously build Base Transceiver Stations, and install antennae which will adequately serve rural health facilities and their surrounding communities. In addition, RuDASA strongly encourages Provincial Departments of Health and Public Works to collaborate, and be proactive in finding solutions to long-standing signal issues at some healthcare facilities, which require simple interventions from cellular network providers.

RuDASA recently conducted an online survey and a total of 90 doctors around the country responded. Unfortunately those in areas of poor mobile telephone coverage were unable to complete the survey. The majority of respondents are located in the Eastern Cape (32%), KZN (27%) and Gauteng (22%) and service providers are predominantly MTN (35%) and Vodacom (44%), with a small percentage represented by Cell C and Telkom Mobile.

When respondents were asked to rate voice coverage in their institution on a scale of one (poor coverage) to ten (excellent coverage), 55% rated it as 3 or less. The most common definitive problems with voice calls from respondents were getting missed call notifications despite the phone not ringing (53%), poor sound quality (39%) and failure to make calls when attempting to do so (39%). Two thirds of respondents reported that signal issues are reportedly worse within buildings, compared to outside. However, it must be noted that one in five reported equally poor signal inside and outside of buildings.

The following statements are additional feedback from respondents:

"I have had to get another phone for work because sometimes the hospital cannot reach me on [provider name]"

"When we have signal it is good, however it frequently drops for hours and you are unable to make any calls or use any data during this time"

"Data frequently is unavailable in parts of the hospital"

"Sometimes we have good reception but when it's bad we don't have any ability to get onto the Internet or Whatsapp messages. When this happens it makes work very difficult"

"Extensive communication with colleagues in other hospitals [is used] via WhatsApp. Very poor data signal strength."

"Getting Whatsapp images is a nightmare. Can't do anything that requires data"

All survey data collected, including respondents contact information and location is available on request for the purpose of investigating and upgrading existing services.

We make this appeal on humanitarian grounds and in the interest of patients' health and lives. Will network providers rise to the challenge or "drop the call" on rural patients?

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The Rural Doctors Association of Southern Africa (RuDASA) strives inspire others towards rural healthcare in South Africa. Our aim is to support and empower those committed to making health care available to all South Africans.

