MOBILE TECH AND HEALTH COMMUNICATION

Today, in countries like South Africa (where 90% of youth and adults have access to a cellphone), almost anyone just about anywhere can communicate with nearly anyone else, immediately and for low cost (relative to any other way of doing this). This is extraordinary; it has the potential to transform how society is organised. We are just starting to explore what this means – many clever people have already learnt how to make lots of money.

But how can any-to-any immediate cheap interaction assist in areas such as health? I work with a not-for-profit company called Cell-Life which is taking the first steps in exploring the uses of cellphones in dealing with the overwhelming burden of disease there is in the country.

Mobile technology in the health sector (now referred to as mHealth) has exploded in the past year. There are dozens of mHealth initiatives, projects, reports and conferences (a global mHealth Summit was held in Cape Town in June this year).

South Africa is one of the countries in the developing world most active in mHealth. One example is that the Department of Health recently received 12 000 cellphones from the cellphone networks, and will distribute them to all the 4 300 public health facilities by the end of the year. Today only a third of these facilities have a working email, so these cellphones can greatly improve health information systems.

Most attention in mHealth goes on the amazing devices being developed in richer countries – the over 8 000 health apps for an iPhone; and "body area networks" that people wear connecting blood-pressure reading bracelets, installed blood-glucose meters, to a cellphone in your breast pocket listening to the heart for indications of arrhythmia.

However, in developing countries most people will not have such high-tech tools for many years. The health system in SA is as unequal as most areas of our society with the 16% with medical aid having a fairly good healthcare, while the public sector has much poorer resources for the remaining 84%.

For most people, assessing the public health system involves long travel, hours of waiting, frustration and poor service. Eighty percent of black South Africans consult a sangoma for health complaints before they go to a doctor. On one level, this is simply because a sangoma is easier to access and will treat the patient with respect. A major role that mHealth can play is in reducing the barriers to accessing the formal health system.

It is easy to get downloads, ringtones, games, love tips, pornography and horoscopes on your phone – why isn't it as easy to get health advice? Clay Shirky said, "These tools don't get socially interesting until they are technologically boring." The 100 000 or so iPhones in the country will have minimal impact on health care: they are amazing gadgets with beautiful health apps, but people with iPhones probably already have an internet connection at home or work and most have medical aid – that isn't where the health problems lie in South Africa. However, if we can turn the normal cellphones that 42 million people have into a tool for healthy living, then we can transform the way health care is communicated in the country.

There are many ways this could work:

- Health promotion and disease prevention: sms health tips and MXit chatrooms to help people stop smoking, lose weight, learn about nutrition, start exercising and generally encourage people living well.
- Providing general health information: why isn't there a free service that allows someone to sms the word "fever" or "nausea" in any SA language and receive sms information on how to deal with it?
- Dial-a-doctor: rather than having to travel and wait for hours to be seen by a nurse, why don't we have a way to phone a medic for a phone consultation, like NHS Direct in the UK or similar services in over 20 countries? If the doctor thinks the patient needs to go to a clinic, a referral note can be sent via sms. This sms would allow the patient to jump the queue in the clinic, and over time this would be a strong incentive for people to use the phone service to screen patients so only those that need to end up at the clinic (mHealth could reduce the numbers of people going to health facilities just like mBanking reduces the demand for bank branches).
- Treatment support for people with chronic conditions like Aids, diabetes or hypertension. Many examples have shown that mHealth can help people to adhere to medication and continue in treatment.
- Reduce the "three delays that kill" in maternal health: 1 500 women die every year in SA during pregnancy and childbirth, and mobile phones can reduce the delay in reaching a health professional when there is a problem, the delay in diagnosing the problem, and then the delay in receiving treatment.

Over the next few years, there is great potential for mHealth to make a difference in the lives of people. This is just one example of how the mobile revolution is changing the way we live.