Coronavirus risks forcing South Africa to make health trade-offs it can ill afford

By Karen Hofman & Susan Goldstein

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South Africa's health authorities are testing, quarantining and treating individuals who have been exposed to the new coronavirus. And the country is in lockdown in an attempt to slow the spread.

Children at window of a building in Hillbrow, Johannesburg. Children will be vulnerable if vaccinations are postponed. Photo by Marco Longari/AFP via Getty Images

Much has been said about balancing the economic trade-offs with the lives the country needs to save versus the social and economic costs of doing so. Less discussed are the trade-offs being made within health care as services are focused on Covid-19.

Child health is of particular concern. South Africa has 5.8m children under 5 years of age. This group appears to be less susceptible to COVID-19. But, if the country doesn't pay attention, the death rate for these children will soon increase.

The reason for this is measles, a highly contagious disease that mostly affects children under the age of five. The basic reproductive number of measles in a susceptible population is between 12 and 18. This means that on average every person with measles will infect between 12 and 18 people. While we don't know with certainty, the reproductive number of symptomatic cases of SARS-CoV-2 is thought to be between 2 and 3.5.

Measles remains a threat in countries across the world despite the fact that a safe and effective vaccine has been available since 1963.

Most measles-related deaths are caused by complications. The most serious includes brain swelling, severe diarrhoea and related dehydration, pneumonia, blindness and deafness. Severe measles is more likely among poorly nourished, young children. With 27% of the country's children either stunted or wasted, any relaxation of the vaccination regime would place them at high risk of severe disease.

As it is, the country's isn't achieving its 91% immunisation target. The global target set by the World Health Organisation is 95%. South Africa's vaccination regime involves providing the first measles vaccine at six months, the second dose at 12 months.

The danger is that health workers will be diverted to other tasks related to Covid-19, further compromising immunisation. This could well mean that South Africa will lose many children due to a measles outbreak which is completely preventable.

The measles threat

Previous research on the impact of measles catch-up campaigns on routine immunisations in 2010 can help inform the country's thinking. These campaigns – or supplementary immunisation activities – required the mobilisation of a large health workforce from within health system.

This had a severe effect on the delivery of health. For example, the research showed that during a three week campaign in 52 districts in 2010 there was a 30% decrease in children completing the primary course of immunisation. In addition, there was a 10% decrease in antenatal visits and a 12%-17% decrease in use of injectable contraceptives.

The Covid-19 epidemic has resulted in the provision of only "essential" health services in some provinces. If routine immunisation is not classified as an essential service there will likely be severe consequences.

In particular, measles will start rearing its ugly head and children will die needlessly. This has occurred in pockets all around the world as a result of campaigns run by parents who refuse to have their children vaccinated. Globally there were 140 000 deaths in 2018 – all avoidable.

Read more:Explainer: a history of the measles virus and why it's so tenacious

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The South Africa government should urgently put in place a plan that can be implemented once the lockdown is over. It should, for example, consider opening schools or day care centres as sites for immunisations. The campaign could use a mobile – information providing cell phone application called Mom Connect to send messages to those caring for children under 2 asking them to bring them to the chosen sites. School nurses together with a volunteer corps of retired doctors and nurses could administer vaccines.

Additional trade offs

The country risks making other health trade offs too.

South Africa is still in the midst of an HIV epidemic – with 7.9-million people infected. Some 2-million, however are not on treatment, which puts them at high risk for Covid-19.

An important lesson the country has learnt about the HIV epidemic is that prevention is critical. And that it needs to be started early (in the epidemic and in life) and needs to be continued for decades. This lesson has not yet been extended to health overall and health literacy for the whole population is a critical base on which to engage a population when it comes to an epidemic.

South Africa has other areas of vulnerability when it comes to health. The country lags behind other comparable developing countries. We don't achieve "a good bang for the buck" in terms of health. Peer countries such as Thailand and Brazil spend less on health and achieve better outcomes. For example, under five mortality in Brazil is half of South Africa's 32 deaths per 1,000 live births.

The danger is that these statistics will get worse as a result of efforts to curtail Covid-19.

Other areas of concern are the growing burden of obesity-related disease such as hypertension, diabetes and common cancers, diseases related to tobacco use and alcohol misuse. Over the past two decades South Africa has not maximised cost effective investments in preventing and treating these conditions.

This means that millions of South Africans are now more vulnerable to Covid-19.

What needs to be done

South Africa needs to begin with prevention of disease and promoting health by focusing on risk factors, many of which are in sectors other than health. These include inequality and poverty, access to clean water and sanitation, healthy nutrition, alcohol and tobacco control.

Without this we will be even less prepared for the next pandemic.

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