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# NEWSLETTER

A monthly publication providing the latest research and information to help support medical practitioners and individuals

## GET CLOSER TOO “NON-COMMUNICABLE DISEASE”

HOW TWITTER FORECAST  
HEALTHCARE TREND

*“ZIKA virus is not the  
reason to postpone  
Olympics.”*

## Zika Virus No Reason To Cancel or Postpone Olympics

According to the World Health Organization (WHO), there is justification to cancel or postpone the Olympic Games in Rio de Janeiro in August this year. Brazil is one of 60 countries in which the Zika virus is spread throughout mosquitos. However, the WHO believes that the Olympics will not significantly alter the spreading of the disease.

They noted that the number of infections in Rio is still rising. In the letter, recent scientific evidence was cited claiming the Zika virus could cause serious birth defects,

such as abnormally small heads for newborn babies. For adults, it could cause neurological problems. According to the WHO, "the best way to reduce risk of disease is to follow public health travel advice".

However, the agency advises pregnant women not to travel to areas in which the virus is currently active, including Rio de Janeiro.

*MEDx - Thomas van der Lee*



## Non-Communicable Diseases Is A Growing Problem In Emerging Countries

The rapid economic and urban development of emerging countries have a problematic side effect. The number of people dying as a result of diseases such as diabetes and obesity is now higher than the number of deaths caused by malnutrition or infections. It is estimated that 23 million people will die annually from these lifestyle diseases by 2030. Over 80% of all deaths of cardiovascular diseases now occur in low-and middle income countries, especially sub-Saharan Africa. One explanation for this is that these countries tend to focus on their resources on the prevention and treatment of infectious such as HIV and malaria.

According to Doctor Donald Pupama in Soweto, South Africa, half of his patients suffer from chronic, non-communicable diseases. He suggests that doctors should recommend lifestyle changes to their patients, included more physical exercise and less consumption of sugar. Jonathon Broomberg from Discovery Health even said "the lack of physical activity is the new smoking".

David van Bodegom, Researcher of Leyden Academy on Vitality and Ageing, explained why he thought emerging countries suffer so much from these lifestyle diseases. Western countries have had a much slower transition from a traditional lifestyle to the modern life of today.

Therefore, they have more time to adapt to newer circumstances, culturally and epigenetically. In many African countries, on the contrary, people were born under circumstances much different from how they are today. Van Bodegom explains that the bodies of many Africans born in poor conditions were adapted to maximally store calories in fat reserves. In the present day, this is a cause for obesity and diabetes.

Doctors agree that the problem could be reduced if people started to adopt a healthier lifestyle. "It is very simple. Stop smoking and start jogging", said Broomberg.

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## How Twitter Can Be Used To Detect Healthcare Trends

In 2016, calling the doctor when you're sick may not be the first thing you do. Instead, many people share their sick feelings with their friends and followers on social media. Because of the massive use of social media across the globe, this information can be used to detect trends in health. Especially the inclusion of a location in a tweet ("geotagging") gives valuable clues.

At Bay Alarm Medical, nearly half a million geotagged tweets related to sickness in the United States were researched and ranked. The most common phrase used to describe illness was, unsurprisingly "I'm sick". They also found that fever was mentioned the most, followed by flu. Interestingly, they could use this data to find which state had the most sickness-related tweets per 100,000 residents.

It was concluded that people from Ohio tweet the most about sickness, which is in line with the state's low healthcare funding, and high levels of obesity, diabetes and smoking.

They also gathered some other interesting statistics. For example, it was found that the number of tweets related to sickness was significantly higher in December and January, the flu season. Also, people tend to feel more sick in the middle of the week, especially Tuesdays and Wednesdays. Conversely, Twitter users post less about sickness in the weekends. Twitter also gave some information about various immunization practices across the states. For example, it was also concluded that tweets about chickenpox occur significantly more in states with philosophical and religious exemptions from vaccination.

Although this method has some drawbacks compared to other research methods regarding healthcare, it can result in useful data. It would be interesting to see a comparable study for other countries, and one in which other networks such as Instagram and Facebook are also included. For the full study report, see [Bay Alarm Medical](#).

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