



## **African Contributions to Global Health**

### Video Transcript

#### **Inequitable spatial development and global health**

Access to adequate housing and living conditions in African cities remains a challenge. The reasons for this are the explosive urbanisation and population growth rates. These are often combined with precarious employment and limited provision of affordable housing. This forces many people to find alternative and often inadequate housing solutions in the informal sector. These kinds of living conditions and the global ecosystem that we live in all have an impact on our health.

Let's take a closer look at how environmental factors influence our quality of life and, therefore, our health. Our health is, of course, affected by individual, biological factors such as our DNA or general physical condition. However, external, non-biological factors can also be key health determinants, as represented here in the "health map" advanced by the scholars Hugh Barton and Marcus Grant. We are all situated in a global ecosystem composed of natural and man-made environments, from a more tangible perspective, and also social environments, from an immaterial perspective. These environmental conditions affect our behaviour and expose us, directly or indirectly, to health risks.

One example of environmental factors that influence our behaviour would be the presence of parks or well-designed pedestrian areas. These can encourage healthy habits such as walking and biking, which can reduce the risk of various non-communicable diseases related to being overweight. Regarding the social environment, different studies show that the level of education of caregivers is associated with child health, notably regarding hygiene. Moreover, low-income levels can also be associated with poor health conditions, from nutritional disorders to higher risk for several infectious diseases. Our living conditions are therefore key health determinants, and universal access to adequate housing is crucial to ensure health equity.

Let's look at a concrete example in the city of Nairobi, Kenya. Originally an outpost of the Uganda Railway, Nairobi has grown to become one of Africa's biggest cities. The city was founded between 1896 and 1899 during the British colonial period. The site of Nairobi was originally part of an uninhabited swamp. The city has its name from the Maasai phrase Enkare Nairobi, which translates to "cool water", a reference to the Nairobi River which flows through the city. From the beginning, land occupation and use followed strict social control rules imposed by the colonisers.



Under British colonial rule, land occupation in Nairobi was defined by ethnicity: Europeans resided in the West and Northwest sectors of the city; Indians, who came in large numbers to work on the construction of the Uganda Railway, were allocated to the North and Northeast sectors; and African people lived in the Southeast sector. This meant that Europeans resided in areas located at higher altitudes, well-ventilated and protected from floods. Conversely, Africans could only occupy the lower sectors. They were more exposed to environmental dangers and, as a consequence, to adverse health outcomes.

If we look at historical data since 1930, we can see the differences in these levels of exposure during various outbreaks of malaria. The number of malaria cases in these outbreaks were unevenly distributed between Europeans and other ethnicities. This is certainly due to the fact that Asians and Africans were much more exposed to mosquito bites, as their residences were allocated to areas without adequate draining systems and prone to floods. These are environmental conditions favourable to the reproduction of mosquitoes, which can be vectors of malaria and other deadly diseases. This shows us how socio-spatial segregation and environmental factors can lead to disparate health outcomes between populations in the same city.

Today, Nairobi is still deeply marked by socio-spatial segregation, but for different reasons. High land prices and real estate speculation force the poor to live in unsuitable conditions in informal settlements. In these places, the lack of access to basic services such as safe water and sanitation has a dire impact on people's health. In addition, high demographic densities and other spatial characteristics exacerbate sanitary issues in these places -- as we have seen with the COVID-19 pandemic.

These examples show how the physical environment -- in other words, where and how people live -- is a key determinant for health. Urban segregation and inequitable spatial development are not just local or regional problems, but truly pressing global health issues.