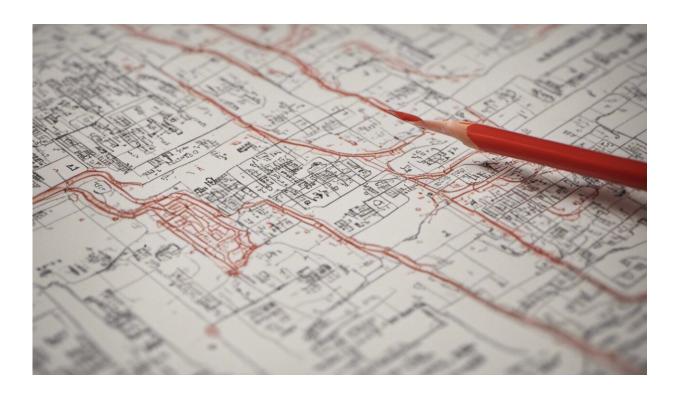


Mapping hepatitis in Kenya shows where action is needed

October 9 2017, by Ochwoto Missiani, Julius Oyugi And Simeon Mining



Credit: AI-generated image (disclaimer)

A study of the different kinds of hepatitis in Kenya showed areas where the government can focus its efforts to prevent infections. One of the findings was a surprise – giving adults the Hepatitis vaccination has been ignored. This is a waiting time bomb, and an area for action that could have been overlooked.



Hepatitis is defined as inflammation of the liver. One symptom is yellowish eyes and skin (jaundice). The most common cause of hepatitis is viral infection.

Viral hepatitis is a <u>public health concern</u> globally. It is difficult to <u>count</u> exactly how many people get hepatitis or how many die from it. One reason is that the infection is caused by five types of virus, named from A to E, and they are passed on in different ways. The other reason is that most hepatitis deaths are not linked directly to the liver infection. Death may result from gradual damage to the liver.

The number of people affected worldwide is known to be hundreds of millions, though.

Our <u>study</u> set out to discover how common hepatitis A to E is among patients with symptoms of liver disease in different regions of Kenya. It was the first study of its kind in Kenya.

The Kenyan study

We studied 389 patients with jaundice at four hospitals: Kenyatta National Hospital (Nairobi), Moi Teaching and Referral Hospital (Eldoret), New Nyanza Provincial General Hospital (Kisumu) and Coast General Hospital (Mombasa). We collected blood samples from the patients and tested them for acute and chronic hepatitis A to E viruses.

The results showed that the main cause of the disease in this group was chronic hepatitis B infection. A chronic infection is one that stays in the patient for a long time or keeps coming back. The second most common cause was acute hepatitis A. This type of infection is sudden. In this study population, we found no recent infection of hepatitis C, D or E.



Hepatitis A virus

The study found that 6.3% of the total group of patients were infected with hepatitis A. Kisumu had 9.2%, the capital city, Nairobi had 6.3% and Mombasa had 5.0%.

<u>Previous studies</u> have shown that by the age of 10 years, nine out of every 10 children in areas where hepatitis A is common are <u>immune</u> to the infection. Therefore due to this immunity, the number of adults who get the disease, reduces.

We did not expect to find that so many adults -6.3% out of 382 could still get the hepatitis A infection.

<u>This virus</u> is passed on in water and food. It can remain in the environment for a long time and can survive processes such as filtration process that are supposed to make food safe.

The finding suggests that adults should be immunised. Prevention efforts should also focus on managing the environment, water and waste.

Hepatitis B virus

About half (50.6%) of the patients tested had hepatitis B virus. Eldoret in Western Kenya had the highest number of cases at 92.9% of all Hepatitis B patients followed by Mombasa (81.8%), Kisumu (79.8%) and Nairobi (33.8%). Patients with chronic infections numbered 128 out of the 168.

<u>Hepatitis B</u> is transmitted through infected blood or other body fluids of an infected person. It can cause liver cancer and cirrhosis, the long term injury of the liver.



Globally, about <u>two billion</u> people have been infected with hepatitis B virus and about <u>350 million</u> of them have the virus for life. The World Health Organisation has categorised Kenya as an <u>endemic area</u>.

Hepatitis C, D and E viruses

Of all the samples collected, 3.9% were positive for Hepatitis C, when the positives were confirmed none was positive indicating exposure to the virus without active infection.

Types \underline{C} and \underline{D} , like \underline{B} , are passed on in blood.

All specimens in the study were negative for hepatitis D virus.

The prevalence of the exposure to hepatitis E virus was 8.1% this is higher than the 6.3% for hepatitis A, which was mentioned above as the second biggest cause of hepatitis and it affected more women than men. Hepatitis E is severe in women than men and in expectant mothers. it causes death among 20% of those infected.

Type E is also carried in water and food. In 2015, the World Health Organisation estimated that hepatitis E caused approximately 44 000 deaths globally – 3.3% of the deaths due to viral hepatitis.

Dealing with hepatitis A and B

Hepatitis A and B are the most serious types of this disease. In our study, the hepatitis A virus was reported in cities where people are crowded into substandard housing without clean water and food.

<u>Sanitation</u> in urban areas needs to be improved urgently. Infections in adults can further be prevented through <u>vaccination</u>.



Hepatitis B needs urgent attention. People at risk include injecting drug users, unborn babies of pregnant women who have tested positive to the virus and people with kidney failure because of repeated dialysis which is a risk of contracting the disease. A hepatitis B <u>vaccine</u> is available for these risk groups. This vaccine is mandatory for all health workers.

Kenya's hepatitis milestones

Kenya has put in place the following preventive measures to manage hepatitis related infections.

- developing <u>national guidelines</u> on the prevention and management of <u>viral hepatitis</u>
- screening all donated blood and its products for transfusions
- vaccination of <u>health workers</u> against hepatitis A and B.
- providing safe sterile needles and syringes
- introduction of hepatitis B <u>virus</u> vaccine in the <u>immunisation</u> <u>schedule in 2003</u> to prevent mother to child transmission.

Way forward

Public health awareness is needed to avert hepatitis A <u>outbreaks</u>, as reported in Coastal Kenya where 21 people were admitted to hospital. This means explaining why people should keep their households and surroundings clean.

The hepatitis B infections can also be reduced by encouraging responsible sexual behaviour screening all pregnant women and providing rehabilitation services for injecting drug users.

The government needs to work with other agencies to increase coverage of immunisation for <u>hepatitis</u> B, especially among the most vulnerable



people.

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