Zoonotic diseases pose a great threat to human and animal health. Understanding the prevalence and status of surveillance of *Taenia saginata* would be a prerequisite for development of prevention and control strategies. Taenia saginata impacts on livestock keeping, which is the main economic activity of residents of Kajiado County. The study was necessary because previous studies have relied on meat inspection which has been proven to underestimate the prevalence rates. A study by Dorny et al., 2000, has proved that ELISA is three times more sensitive than meat inspection and should be used for epidemiological studies. This study focused on determining the seroprevalence of *Taenia saginata* in Kajiado County, Kenya. This was a cross sectional study model whose specific objective included to (i) determine the seroprevalence of *Taenia saginata* cysts (Cysticercus bovis) in cattle presented for slaughter in selected slaughterhouses in Kajiado County, Kenya.

### RESULTS

- From 150 samples that were collected and analyzed, 4 tested positive for *Taenia saginata* cysts (*C. bovis*). This translates to a prevalence of 2.67% in Kajiado County between June and July 2021.
- The prevalence (4%) was encountered at Kitengela slaughterhouse, followed by Keekonyokie slaughterhouse at 3.33% and the least was Kiserian slaughterhouse with a prevalence of 0%.
- The animals that were sampled originated from Kiserian, Kitengela, Bisili, Sampa, Loboto, Nkoropir, Ngong and Rongai. This is as confirmed from movement permits and word from the meat inspectors. This is representative of the entire Kajiado County.

<table>
<thead>
<tr>
<th>Slaughterhouse name</th>
<th>Total Sampled</th>
<th>Total positive</th>
<th>Total negative</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiserian</td>
<td>40</td>
<td>0</td>
<td>40</td>
<td>0</td>
</tr>
<tr>
<td>Keekonyokie</td>
<td>60</td>
<td>2</td>
<td>58</td>
<td>3.33%</td>
</tr>
<tr>
<td>Kitengela</td>
<td>50</td>
<td>2</td>
<td>48</td>
<td>4%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>150</strong></td>
<td><strong>4</strong></td>
<td><strong>146</strong></td>
<td><strong>2.67%</strong></td>
</tr>
</tbody>
</table>

The following conclusions were made from the study

- Taenia saginata cysts (*Cysticercus bovis*) is still present in Kajiado County.
- No Taenia saginata cysts (*Cysticercus bovis*) was diagnosed at meat inspection during the study period. This confirms that ELISA is more sensitive as compared to meat inspection.
- Slaughterhouses in Kajiado County have cold rooms that are not operational.
- Prompt diagnosis will aid in treatment of cases and this will ultimately lead to increased livestock productivity. Livestock keepers will in turn make profits and the contribution of the livestock sector to the economy will increase.

CONCLUSIONS

DISCUSSION

- The overall seroprevalence of *Taenia saginata* between June and July 2021 was 2.67%. This confirms that *Taenia saginata* is still a challenge in Kajiado County despite the claim that the disease levels have reduced.
- During the study period, the meat inspectors did not pick any cysts at meat inspection. This is proof that serology is more sensitive as compared to meat inspection and should be used for epidemiological studies as recommended by Dorny et al., 2000.
- According to Meat control Act of Kenya, it is recommended that no carcasses with cysts should directly be passed on for human consumption. Carcasses with 1-5 cysts should be retained, frozen at ~10°C for at least 10 days and released "unconditionally", those with 6-20 cysts, should be treated in the same manner as above but released conditionally, and those with over 20 cysts should be totally condemned (Meat Control Act, 2012). An interview with the meat inspectors during sampling process revealed that all the three slaughterhouses have cold rooms that are non operational. This is a hindrance to management of carcasses that contain cysts as recommended by the Meat control Act.