

Hepatitis E outbreak in Namibia

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Abstract

Hepatitis E is a deadly infectious disease that can easily spread in a community that has poor sanitary conditions. Cases of hepatitis E infection has been reported in the informal settings of Windhoek, Namibia and the City Council swoop in to improve the sanitary conditions in these areas. The current study sought to know the knowledge of residents of the city concerning issues surrounding hepatitis E infection.

Keywords: Hepatitis E; Informal settings; Namibia; WASH; Sanitation

1 Introduction

WASH project was implemented as part of the interventions aimed at curbing the spread of Hepatitis E in the informal settlements on the outskirts of Windhoek. This entails teaching the individuals in these places, the need for proper hygiene, in particular washing of hands; food vendors, hawkers etc. were part of the groups that were targeted during the health education campaign and trainings. During assessment visits to the locations, deplorable sanitary conditions were uncovered; there were more than 200 food vendors in and around the area who sell food under unhygienic conditions which can contribute to the spread of hepatitis E.

This report details the findings of the Committee charged with the control of hepatitis E at the Ministry of Health and Social Services, interventions initiated to mitigate the spread of the infection, and major outcomes of both the hepatitis E outbreak and interventions. Some of the findings include improper sanitary conditions, non-availability of clean water, dumping sites close to food vendors and vendors who do not wash their hands while serving food. Also, a study on the knowledge of residents in the informal settlements was carried out.

1.1 Programme and monitoring objectives

1.1.1 Programme objectives

- To increase the proportion of sanitation facilities in informal settlement.
- To increase the number of hand washing facilities/outlets especially inside public toilets, in the informal settlements of Windhoek, Namibia
- To increase the number of potable pipe-borne water outlets for the residents of informal settlements.
- To avail healthcare workers working in the public facilities, tools such as teaching aids and protective clothing.
- To reduce the spread of hepatitis E in the community.

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1.1.2 Monitoring objectives for the WASH project

- To obtain the number of notified cases of new Hepatitis E infection per month.
- To obtain the number of health talks on Hepatitis E infection aired on the mass media through the radio and newspapers per month.
- To obtain the number of potable water outlets developed per month.
- To determine the number of homes where water closets are installed per month.
- To obtain the number of healthcare workers enrolled on the WASH project per month.

2 Material and methods

Structured questionnaire adapted from literature (1) and modified was administered, to ascertain the impact of the health talks on Hepatitis E and also assess the knowledge of residents. This was administered to designated healthcare workers and community members living in the affected areas.

2.1 Data analysis

The data obtained from the survey was entered on to SPSS version 22. Results were presented using descriptive statistics such as means, mode and percentages.

2.1.1 Ethical considerations

Ethical approvals were obtained from the School of Public Health, University of the Western Cape, South Africa and Khomas Regional Office, Ministry of Health Social Services, Namibia.

3 Results/Findings

City of Windhoek set up some hand washing facilities in and around the informal settlements; however, some of these were not functional during the time reports were collated.

Between the months of January and October 2019, a total of 127 suspected cases of hepatitis E infection were reported to the Regional office.

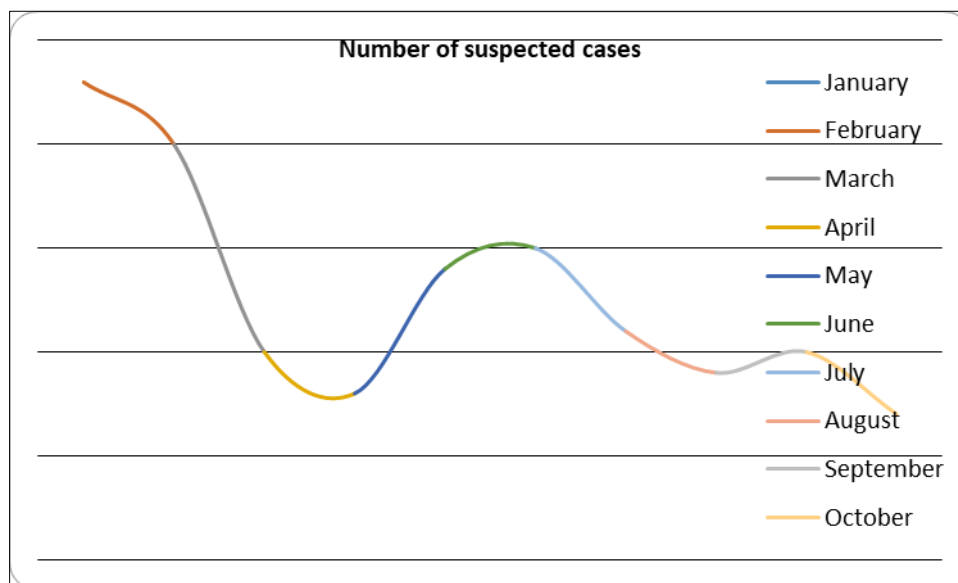


Figure 1 The number of cases per month.

The number of reported suspected cases went down over time, this might be due to the interventions initiated by the Ministry of Health and Municipality. The highest number of cases was seen in January.

3.1 Hepatitis E health education/awareness

Thirty (30) respondents were recruited for the survey. Out of these, 23 (76.7%) were females and more than 80% were aged between 17 and 40 years (Table 1).

Table 1 Age * Sex Cross tabulation

		Sex		Total
		Female	Male	
Age	15 - 24	4	3	7
	25 - 34	12	3	15
	35 - 44	6	1	7
	55 - 64	1	0	1
Total		23	7	30

Of these, 20.6% were unemployed and 2 were vendors. About 80% of the respondents knew that hepatitis E can be transmitted through contaminated food, especially meat; while more than 50% reported hepatitis E cannot be transmitted through shaking of hands.

More than 90% knew proper hand washing is one of the ways to prevent the spread hepatitis E infection; this is in contrast to the number of respondents who believed the infection can be transmitted through hand shaking.

80% of the respondents had flushable toilets in their houses while 96.7% mentioned they have water in their houses; the source of water for majority of the respondents (89.7%) was tap water.

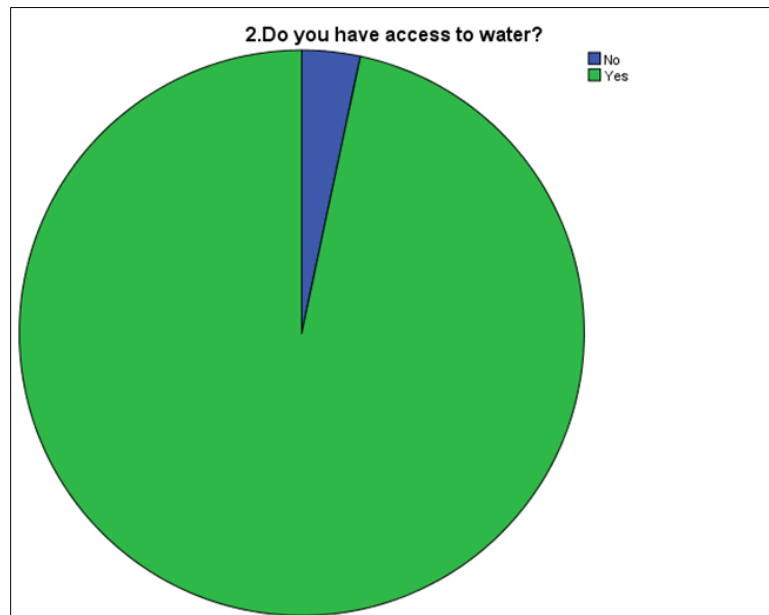


Figure 2 Access to potable water

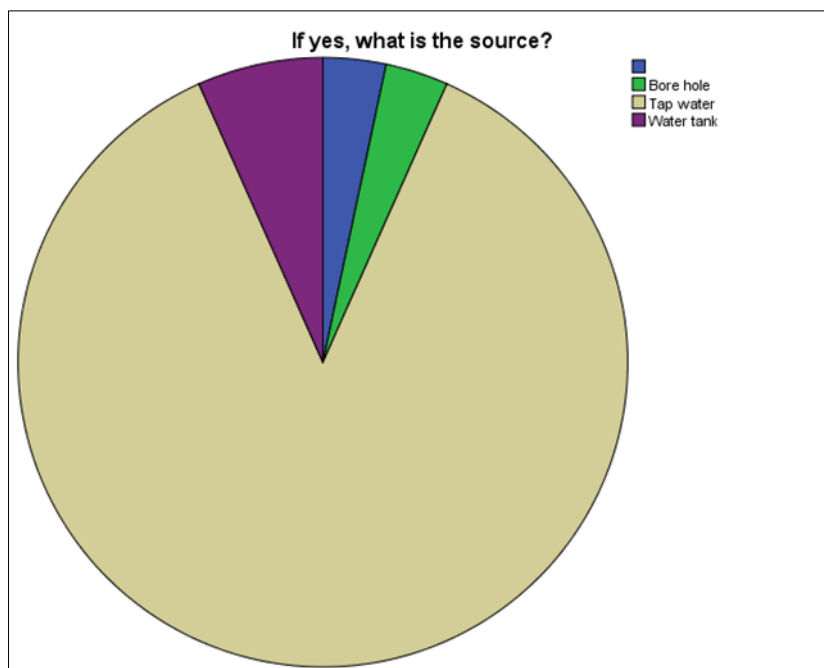


Figure 3 Source of water supply

More than 80% of the respondents claimed they washed their hands more than five times daily. Also, about 86% claimed they eat fully cooked meat and more than 96% claimed they eat properly cooked vegetable before consumption.

Table 2 Knowledge of hepatitis E among residents of Windhoek, Namibia

No.	Question	Yes n (%)	No n (%)
	Hepatitis E infection is caused by a virus	14 (46.7)	14 (46.7)
	Hepatitis E can be transmitted through eating contaminated food or intake of contaminated drink	23 (76.7)	6 (20.0)
	Hepatitis E can be transmitted through blood	11 (36.7)	18 (60.0)
	Hepatitis E can be spread from infected mother to baby during pregnancy	14 (46.7)	16 (53.3)
	Hepatitis E can be spread by shaking hands with an infected person	17 (56.7)	13 (43.3)
	Hepatitis E infection can be prevented with a vaccine	16 (53.3)	14 (46.7)
	Hepatitis E infection can be prevented with a balanced diet	14 (46.7)	15 (50.0)
	There is a blood and faecal test that can be done to detect Hepatitis E infection	27 (90.0)	3 (10.0)
	Hepatitis E infection can be transmitted to your partner	11 (36.7)	18 (60.0)
	Jaundice (yellow eyes) is one of the most common signs of Hepatitis E infection	27 (90.0)	1 (3.3)
	Hepatitis E can be prevented through proper hand washing with soap and water	29 (96.7)	1 (3.3)
	Is Hepatitis E a sanitation related disease?	27 (90.0)	2 (6.7)
	Can Hepatitis E affect the liver?	25 (83.3)	5 (16.7)
	Hepatitis E can cause liver failure and death	29 (96.7)	1 (3.3)
	Do you know that hepatitis E can affect anybody?	25 (83.3)	5 (16.7)

4 Discussion

Health talks on hepatitis E were aired on both television and radio, the impact of the talks was assessed in a later study reported below. The results obtained showed a high level of knowledge of hepatitis E and how the disease is spread.

The government is still constructing water projects that will assist in curbing the spread of the infection.

The level of knowledge of the respondents was good after the introduction of health education focused on curbing the spread of hepatitis E in the informal settlements.

4.1 Dissemination plan

Results obtained from the findings and interventions will be presented to the district health management team and other stakeholders in the community.

Policy makers from both the City Council and Ministry of Health and Social Services will form the audience that the results of the project will be presented to. Progress reports from the programme objectives such as the number of hand washing facilities installed will be shared during the meeting.

Also, results of the health education activities and data obtained from the survey will be presented to the aforementioned policy makers.

5 Conclusion

The study has endeavored to capture the state of Hepatitis E transmission and knowledge of the infection among individuals living in the informal settlements of Windhoek, Namibia. Educational intervention embarked upon by the Ministry of Health and Social Services was believed to have an impact on the perceived knowledge of the respondents, which is hoped will have an impact on the prevention of the transmission of the disease and promotion of health among the residents of these settlements. It should be pointed out that due to the sample size, results of the study cannot be generalized.

Recommendations

- It is necessary for the government to continue the health promotive activities necessary to mitigate the spread of hepatitis E infection.
 - Government should give more input into sanitation facilities.
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Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

The authors do not have any conflict of interest related to this study.

Statement of informed consent

Verbal informed consent was obtained from all individual participants included in the study.

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