

# Seroprevalence and Associated Factors of Viral Hepatitis E in Pregnant Women Receiving Antenatal Care at the Saint Camille Hospital in Ouagadougou, Burkina Faso (2024)

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## Abstract

Viral hepatitis E is a major public health problem, particularly in pregnant women given the decline in immunity, with negative implications for the health of pregnant women and healthcare systems. Viral hepatitis E can be transmitted by ingesting contaminated meat, particularly from pigs and other animals. In Burkina Faso, few studies have been carried out on viral hepatitis E in pregnant women. This study aims to investigate the seroprevalence and associated factors of viral hepatitis E in pregnant women receiving antenatal care at Saint Camille Hospital of Ouagadougou. A cross-sectional study was conducted among pregnant women receiving antenatal care at Saint Camille Hospital of Ouagadougou. The analysis was based on a sample of pregnant women, aged between 15 and 49 years. After informed consent, 5 ml of blood was drawn from each woman using a semi-structured questionnaire. Detection of anti-HEV antibodies (IgG) in human sera was performed using the ELISA serological method. Data analysis was carried out to determine seroprevalence and identify risk factors, using Stata software version 16.1, with a significance level of 5 %. A total of 208 pregnant women aged 15 to 49 were included in the study; 31.25 % were aged between 25 and 29, and the majority of women lived in urban areas 88.46%. Anti-HEV IgG antibodies were found with a prevalence of

50% [43.14 - 56.85] (n = 104). With regard to the risk factors associated with infection: consumption of animal intestines [OR = 3.02 (1.66 - 5.49)] and consumption of fresh milk [OR = 3.27 (0.78 - 13.70)] 36.53% of IgG-positive pregnant women were in higher education; 6.73% lived mainly in unserved areas and therefore had no access to drinking water. Our study revealed a high prevalence of hepatitis E among pregnant women consulting the antenatal care service at Saint Camille Hospital of Ouagadougou, Burkina Faso. The results highlight socio-demographic factors, lifestyle and dietary habits. An efficient control strategy based on raising public awareness of the risk factors for zoonotic transmission of this disease is essential to effectively strengthen public health. Implementing appropriate hygiene practices and providing information on the ways in which viral hepatitis E is transmitted could help reduce the rate of infection among those at risk.

### Keywords

Viral Hepatitis E, Zoonotic Transmission, Communicable Diseases, Pregnant Women, Public Health, Ouagadougou, Burkina Faso

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## 1. Introduction

Viral hepatitis E is an acute viral disease present on a global scale, but it is mainly observed in East and South Asia [1] [2]. It is a major concern in growing public health and constitutes an emerging disease whose incidence increases significantly in certain populations and regions [1] [2]. About 60% to 75% of emerging diseases in humans are zoonoses, which implies that they are transmitted from animals to humans and vice versa [1] [3]. A large number of domestic and wild animals and pathogens play a well-identified role in the ecology of diseases transmissible to humans, which cannot be dissociated from its ecosystem: this is the case for viral hepatitis E [3]. The hepatitis E virus (HEV) is responsible for more than 50% of acute viral hepatitis in adults in endemic countries and about 1% in non-endemic countries [4] [5]. Although most HEV infections are benign, infections in pregnant women can progress to fulminant hepatitis, especially in the third trimester, with a high mortality rate of 15% - 20% [4] [5]. HEV is mainly transmitted enterically, but cases of parenteral transmission through blood have been reported [6]. There are four major genotypes of HEV. Genotypes 1 and 2, strictly human, are predominant in Asia, Africa and Central America, and are mainly transmitted through contaminated water [7]. Genotypes 3 and 4, transmitted zoonotically, are more common in industrialized countries and are associated with contaminated food consumption [7]. Their transmission by transfusion has been reported, notably in India. The large animal reservoir of these viruses, including pigs, wild boars, deer and rabbits, explains a transmission related to the consumption of insufficiently cooked food. Products of porcine origin, game but also shellfish, fruits and vegetables contaminated by livestock effluents, or irrigation water are con-

cerned [8]. Genotypes 3 and 4 can also be transmitted through direct contact with infected animals. Transmission by transfusion has been documented in Japan (genotypes 3 and 4) and several European countries (genotype 3) including France, the UK, Germany and Spain [7] [9]. It is also responsible for chronic viral hepatitis in immunocompromised patients in the countries of the Northern Hemisphere and mortality in pregnant women in countries with a low level of hygiene [10]. HEV infection may also aggravate underlying hepatopathies. Although the HEV has been discovered for more than 30 years, the pathophysiology of infection and interactions between the HEV and its host are still incompletely known [10].

Every year, an estimated 20 million infections with HEV occur worldwide, resulting in some 3.3 million symptomatic cases of hepatitis E that would have caused about 44,000 deaths in 2015 (or 3.3% of the mortality due to viral hepatitis [11] [12]. The hepatitis E virus (HEV) is therefore the causative agent of some of the acute or fulminant hepatitis that occurs mainly in developing countries (Africa, Asia) or the HEV of genotype 1 seems to present an endemic profile punctuated by epidemic outbreaks often linked to population movements (climate disaster or conflicts) [13]. Recently, it has been shown that this virus was widely distributed in animal reservoirs (genotype 3 and 4) and the cause of a large number of zoonotic infections both in northern and southern countries [13]. In most cases, it is a spontaneously resolved infection with rapid viral clearance, but it can evolve into more severe forms with a mortality level ranging from 1 to 4% in the general population and nearly 20% in pregnant women during outbreaks [13]. The prevalence varies worldwide (5% to 15% in Japan, Western Europe, USA). In West Africa, HEV seroprevalence ranges from 8% in Sierra Leone to 22% in Ghana [14]. The prevalence of the disease among pregnant women in West Africa is 16.40 (95% CI: 11.39 - 21.41), in North Africa 50.01 (95% CI: 4.43 - 95.58), in East Africa 35.0 (95% CI: 21.74 - 48.26), in Central Africa 10.45 (95% CI: 3.02 - 17.88) [15]. In Burkina Faso, the prevalence among blood donors was 19.1% in 2012 [16] and 18.2% in cases of febrile jaundice in 2019 (Muraz Center) [17], the molecular epidemiology of HEV or the presence of this virus in the main animal reservoir, which pigs constitute. In addition, the ignorance of the population as to the causes of this foodborne infection is a risk factor that cannot be ignored [16] [18]-[21].

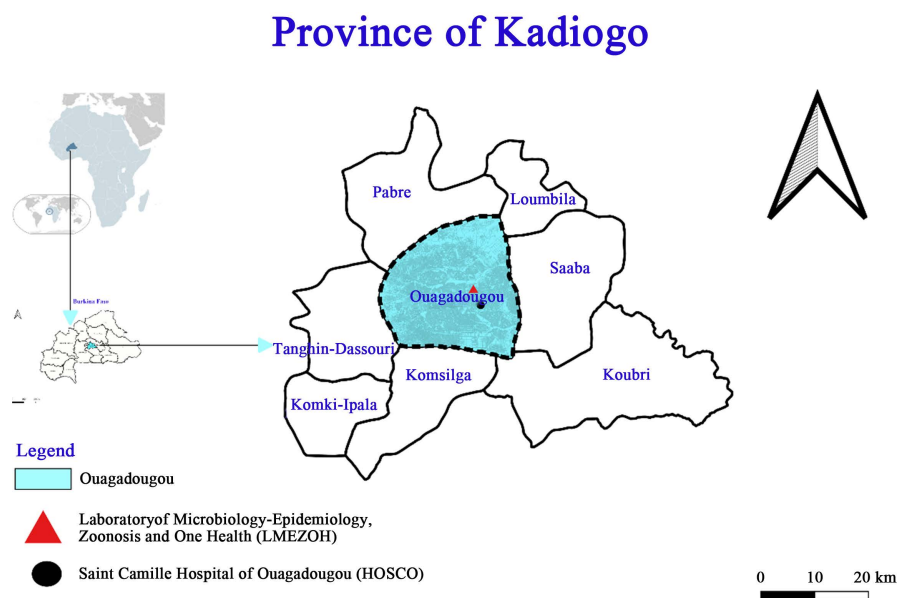
Hepatitis E virus (HEV) causes acute viral hepatitis and has two distinct epidemiological profiles [22]-[24]. Genotypes 1 and 2 cause outbreaks in high-prevalence areas, with high morbidity and mortality among pregnant women and young children, while genotypes 3 and 4 cause less symptomatic cases in low-prevalence areas [22]-[24]. Contamination with genotypes 1 and 2 typically occurs in developing countries via the fecal-oral route, while genotypes 3 and 4 are transmitted in developed countries through the consumption of contaminated pork or other meats [22]-[24]. Catastrophic epidemiological data have been reported in Bangladesh, with mortality rates of more than 9% of pregnant women due to hepatitis E [25]-[27]. The difference in severity between regions could be linked to virological and socio-economic factors. Viral hepatitis E presents an increased risk

of obstetric complications and maternal mortality in areas of high endemic [23] [27] [28]. She has a poor prognosis in pregnant women in developing countries [23] [27] [28]. This study aims to fill the data gap on viral hepatitis E (HVE) in pregnant women in Burkina Faso, a subject still little explored. Awareness on prevention measures remains insufficient, making necessary a better understanding of local dynamics. The general objective is to determine the seroprevalence of HVE among pregnant women attending the prenatal care service at Saint Camille Hospital in Ouagadougou, while analyzing the socio-demographic characteristics and associated transmission factors.

## 2. Methods

### 2.1. Framework of Study

This study took place in Ouagadougou, capital of the province of Kadiogo, located in the central region of Burkina Faso. The collection of biological samples was carried out in the maternity department of the Saint Camille Hospital of Ouagadougou (HOSCO). The Laboratory of Microbiology-Epidemiology, Zoonosis and One Health (LMEZOH) was used for the analyses of collected sera. The study area is represented by **Figure 1**.



**Figure 1.** Geographical location of the study area (Source: Tialla *et al.*, 2026).

### 2.2. Type, Period and Population of Study

It was a cross-sectional study with an analytical aim and data collection from pregnant women received in prenatal consultation or care (PNS) at the Saint Camille Hospital of Ouagadougou (HOSCO) in 2024. It was spread over a period ranging from July 18, 2024, to February 21, 2025, with the collection of blood samples that took place from July 18 to September 04, 2024; monitoring of biological analysis and interpretation of results were carried out from February 20 to 21, 2025. It

focused on all pregnant women (aged 18 and over) received in prenatal consultation at HOSCO.

### 2.3. Sampling Method, Data Collection and Laboratory Diagnostic

Given that we had worked on primary data, and used systematic sampling and the sample size was obtained using the SCHWARTZ formula:

$$n = \frac{Z_{1-\frac{\alpha}{2}}^2 p(1-p)}{d^2}$$

$n$  = sample size;  $z$  = confidence level according to the normal centered reduced (for a 95% confidence level,  $z = 1.96$ );  $p$  = estimated proportion in pregnant women  $p = 10.6\%$ ;  $d$  = margin of error tolerated (for example, we want to know the actual proportion within 5%) [38]. Systematic sampling involves taking into account in the sample any individual meeting the inclusion criteria and agreeing to participate in the study.

The data were collected from volunteer pregnant women using a semi-structured questionnaire, followed by blood samples that were taken with 5 ml of venous blood taken from the forearm of each participant under conditions of rigorous asepsis by us-even and a qualified staff, on dry tube using a sterile disposable needle. In the field, all samples (blood) collected were carefully placed in racks and stored under cold conditions before being sent to the Laboratory of Microbiology-Epidemiology of Zoonosis and One Health (LMEZOH). Once there, the samples are centrifuged at 3500 rpm for 10 minutes to obtain sera. Two aliquots of each serum per specimen are collected and stored in the freezer ( $-80^{\circ}\text{C}$ ) until the serological ELISA test is performed.

Given the available means, the serological test was carried out with the DRG HEV IgG ELISA 7.0v kit (reference EIA 4145), DRG International, Inc., USA, in accordance with the manufacturer's recommendations. The goal was to test for anti-HEV (IgG) antibodies in human sera. This kit is based on the indirect ELISA test. Thus, all the plate wells are pretreated with recombinant antigens specific to hepatitis E virus encoding for conservative and immunodominant determinants of the 4 subtypes. Diluted sera are added to each well of the plate and anti-HEV antibodies, if present in the serums, bind to the coated antigens. After removing all other components from the sample, anti-HEV IgG is detected by adding specific polyclonal anti-human IgG antibodies combined with horseradish peroxidase (HRP). After the washing steps that remove excess unbound antibodies, the substrate of the peroxidase enzyme is added. The resulting staining depends on the amount of specific antibodies present in each sample and is proportional to the concentration of specific antibodies.

### 2.4. Statistical Analyses

The data generated was entered using the input mask on KOBOTOOLBOX every day and imported from KOBOTOOLBOX to EXCEL and subsequently analyzed

by the software Stata 16, the analyses were carried out based on appropriate statistical tests, the Pack office was used for us to enter the work and the data will be presented using figures and tables. The significant control variables with a p-value  $\leq 0.20$  in the bivariate analysis and variables that showed a strong association in the literature were retained for the continuation of the multilevel analysis, and the Stata corr command was used to determine the relevance of the selected variables and to detect the presence of a multi-collinearity between the variables to be controlled in order to the include in the analysis and 0.7 was chosen as a threshold for covariances. Through a multivariate logistic regression with a significance threshold set at  $p < 0.05$ . Odds ratio (OR), 95% confidence intervals, p-values have been calculated and interpreted. We assessed the acceptability of the model using the roctat command from Stata in order to evaluate the percentage of the area under the ROC curve, estat gof for a good model fit quality, linktest for the specification of the model in accordance with the work of O'brien in 2007 and Olusegun in 2015 [29] [30].

## 2.5. Data Quality Assurance

Before the actual work, the questionnaire was pre-tested to ensure that it is appropriate and understandable. The data collection was carried out and the collected data were checked daily for reliability. Sample collection and laboratory analysis were performed in accordance with the manufacturer's procedures and operating standard. Known positive and negative samples were used to check the quality of all reagents and materials (used as positive and negative control for internal quality control).

## 3. Results

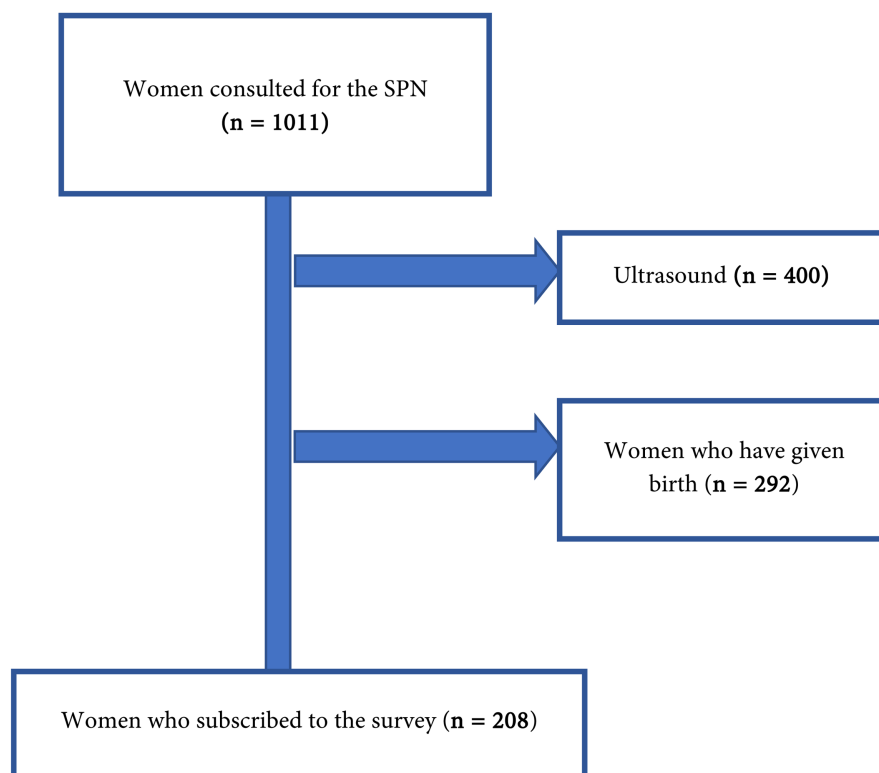
### 3.1. Flow Diagram of the Participants

In total, during our study period, 1011 women visited the prenatal care service (PNS). During our study, 292 of them gave birth and 28 women were hospitalized for pathological pregnancies and 400 pregnant women were referred for ultrasound. Regarding our inclusion criteria: being at least 18 years old (adult in Burkina Faso); being voluntary and interested in the study; being pregnant; having come for CPN or SPN; 291 women were eligible and only 208 pregnant women received in the antenatal care service at Saint Camille Hospital of Ouagadougou in Burkina Faso agreed to participate in the present study, the reason for this discrepancy, some pregnant women were advancing as arguments for not having informed their spouses either, the blood sample would cause pain, others still refused outright after the interview (Figure 2).

### 3.2. Seroprevalence of Viral Hepatitis E in Pregnant Women Surveyed

After laboratory analysis, it appears that 104 women out of 208 pregnant women

were positive to the ELISA test, which corresponds to a seroprevalence of 50% (IC95% [47.5 - 52.5]).



**Figure 2.** Flow diagram of the study participants.

### 3.3. Factors Associated with the Transmission of Viral Hepatitis E in Pregnant Women Surveyed

#### 3.3.1. Bivariate Analysis of Socio-Demographic, Gynaecological-Obstetrical Characteristics Associated with the Positivity of the ELISA Test

In our study, pregnant women aged 25 - 34 years had a significantly higher risk of contracting viral hepatitis E compared to those aged 15 - 24 years, with odds ranging from 1.02 to 1.26 times higher. On the other hand, those aged 35 and over had a reduction of 7%. Then the level of primary education increases the chances of contracting viral hepatitis E, with ORs of 1.27 (**Table 1**).

**Table 1.** Bivariate analysis of socio-demographic, gynaecological-obstetrical characteristics associated with the positivity of the ELISA test in pregnant women receiving prenatal care at HOSCO in Ouagadougou, Burkina Faso, in 2024.

Variable	Modalities	OR (CI <sub>95%</sub> )	P-value
Age group	15 - 24	1	-
	25 - 29	1.02 (0.46 - 2.30)	0.955
	30 - 34	1.26 (0.55 - 2.88)	0.587
	35 et plus	0.93 (0.40 - 2.20)	0.875

## Continued

	None	1	-
Instruction level	Primary	1.27 (0.43 - 3.71)	0.667
	Secondary	0.95 (0.37 - 2.45)	0.911
	Superior	0.95 (0.37 - 2.45)	0.915
Profession	Employee	1	-
	Informal sector	1021 (0.56 - 2.62)	0.632
	Student	0.67 (0.29 - 1.55)	0.345
Marital status	Unemployed	1.26 (0.60 - 2.65)	0.547
	Unmarried	1	-
	Married	1.27 (0.58 - 2.80)	0.549
Habitat	No	1	-
	Yes	1.00 (0.49 - 2.05)	1.000
Residence	Peri-urban	1	-
	Urban	0.68 (0.29 - 1.62)	0.387
Gesity	Multigesta	1	-
	Paucigesta	0.91 (0.46 - 1.80)	0.792
	Primigesta	1.34 (0.70 - 2.56)	0.373
Gestational age	First quarter	1	-
	Second quarter	2.11 (0.83 - 5.33)	0.116
	Third quarter	1.54 (0.61 - 3.84)	0.59
Water source	Drilling	1	-
	Tap	1.00 (0.34 - 2.96)	1.000

CI: Confidence interval.

### 3.3.2. Bivariate Analysis of Eating Habits Associated with the Positivity of the ELISA Test

In our study, among the feeding habits, the consumption of fresh milk and the consumption of the intestines of animals were significantly associated with viral hepatitis E. Women who consumed the intestines of animals had 2,7 times the risk of contracting viral hepatitis E compared to those who did not consume [OR = 2.7 (1.54 - 4.75)]; similarly, pregnant women who consumed fresh milk had 2.8 times the risk of contracting viral hepatitis E compared to those who did not consume fresh milk [OR= 2.8 (0.72 - 10.89)] all other things being equal (**Table 2**).

### 3.3.3. Bivariate Analysis of Lifestyle and History Associated with the Positivity of the ELISA Test

With regard to the lifestyle and history characteristics of the woman, no one was associated with viral hepatitis E (**Table 3**).

**Table 2.** Bivariate analysis of eating habits associated with the positivity of the ELISA test in pregnant women receiving antenatal care at HOSCO in Ouagadougou, Burkina Faso, in 2024.

Variables	Modalites	OR (CI <sub>95%</sub> )	P-value
Do you eat tubers	No	1	-
	Yes	1.22 (0.60 - 2.49)	0.587
Do you eat pork	No	1	-
	Yes	1.12 (0.65 - 1.93)	0.677
Do you consume animal intestines	No	1	-
	Yes	2.70 (1.54 - 4.75)	0.001
Meal	Common	1	-
	Individual	1.27 (0.73 - 2.21)	0.399
Do you consume fresh milk	No	1	-
	Yes	2.81 (0.72 - 10.89)	0.136
Do you eat cheese	No	1	-
	Yes	1.18 (0.38 - 3.63)	0.775
Do you eat yogurt	No	1	-
	Yes	0.82 (0.40 - 1.67)	0.587
Do you consume Dèguè	No	1	-
	Yes	0.79 (0.40 - 1.55)	0.490

CI: Confidence interval.

**Table 3.** Bivariate analysis of lifestyle and history associated with the positivity of the ELISA test in pregnant women receiving antenatal care at HOSCO in Ouagadougou, Burkina Faso, in 2024.

Variable	Modalites	OR (CI <sub>95%</sub> )	P-value
Do you live on a farm	No	1	-
	Yes	0.50 (0.04 - 5.55)	0.569
History of blood transfusion	Absent	1	-
	Present	1.17 (0.68 - 2.01)	0.579
Do you use manure for the garden	No	1	-
	Yes	2.02 (0.18 - 22.62)	0.569

CI: Confidence interval.

### 3.3.4. Bivariate Analysis of Knowledge on Viral Hepatitis E Associated with the Positivity of the ELISA Test

Regarding knowledge about viral hepatitis E, pregnant women with knowledge about hepatitis E had 1.21 times the risk compared to those without knowledge

[OR = 1.21 (0.36 - 4.10)] for viral hepatitis E, this result is not statistically significant at the 5% threshold as shown in **Table 4**.

**Table 4.** Bivariate analysis of knowledge on viral hepatitis E associated with the positivity of the ELISA test in pregnant women receiving antenatal care at HOSCO in Ouagadougou, Burkina Faso, in 2024.

Variable	Modalites	OR (CI <sub>95%</sub> )	P-value
Have you ever heard of HEV	No	1	-
	Yes	1.21 (0.36 - 4.10)	0.757
Do you know that certain diseases are transmitted by animals to humans	No	1	-
	Yes	1.22 (0.60 - 2.49)	0.587
Do you know that HEV is a zoonosis that is transmitted to humans	No	1	-
	Yes	0.73 (0.29 - 1.81)	0.491

CI: Confidence interval.

### 3.3.5. Multivariate Analysis

In multivariate analysis, the factor significantly associated with viral hepatitis E in pregnant women was the consumption of the intestines of animals. Women who consumed the animals' intestines had a 3.02-fold increased risk of contracting viral hepatitis E compared to those who did not consume [OR = 3.02(1.66 - 5.49)] and this association is statistically significant at the 5% threshold (**Table 5**).

**Table 5.** Multivariate analysis of factors associated with the positivity of the ELISA test in pregnant women receiving antenatal care at HOSCO in Ouagadougou, Burkina Faso, in 2024.

Variables	Modalites	OR (CI <sub>95%</sub> )	P-value
Age woman	15 - 24	1	-
	25 - 29	1.39 (0.56 - 3.44)	0.474
	30 - 34	1.25 (0.47 - 3.31)	0.656
	35 and more	0.89 (0.34 - 2.34)	0.811
Instruction level	None	1	-
	Primary	1.35 (0.41 - 4.49)	0.626
	Secondary	0.91 (0.30 - 2.79)	0.873
	Superior	1.40 (0.38 - 5.15)	0.611
Profession	Employee	-	-
	Informal sector	1.16 (0.49 - 2.73)	0.737
	Student	0.48 (0.17 - 1.36)	0.166
Residence	Unemployed	1.08 (0.43 - 2.72)	0.874
	Peri-urban	1	-
	Urban	0.79 (0.31 - 2.05)	0.629

**Continued**

Do you consume fresh milk	No	1	-
	Yes	3.27 (0.78 - 13.70)	0.104
Do you consume animal intestines	No	1	-
	Yes	3.02 (1.66 - 5.49)	0.001
	Constant	0.58 (0.12 - 2.77)	0.497

CI: Confidence interval.

**3.3.6. Post-Estimation Test**

The model is significant with a  $p$  0.0486.

estat gof: The test by Hosmer and Lemeshow was at 0.5890 > 0.05 indicating that the selected model fit well to the data.

lroc: The area under the ROC curve at 0.7761 suggesting acceptable discrimination.

linktest: With hatsq at 0.69 so above the 5% threshold and hat at 0.000 the set suggesting that the model is correctly specified.

**4. Discussion**

This study revealed that 50% of pregnant women in Burkina Faso, particularly in Ouagadougou, had been in contact with the hepatitis E virus (HEV) and had an IgG antibody. But, we cannot invalidate or confirm the presence of a contact or an old one. This high prevalence observed in our study highlights the importance of viral hepatitis E (HVE) as a public health problem. In Burkina Faso, the only study that was carried out on pregnant women is that of Florence *et al.* [19] who had found a prevalence of 10.6%. This difference is certainly related to the diagnostic tests used. In Africa, this prevalence is more or less similar to the one reported by Dagneu *et al.* [15] in North Africa which was 50.2%. However, it is different and higher than those obtained by studies conducted in Tunisia (4.3%), Gabon (14.1%), Ghana (28.7%) and Sudan (41%) and in Asia (in China (11.1%) and in India (33.6%)) [19.49 - 52]. It is lower than that found in Egypt (84.3%) [31]. Our high prevalence could be attributed to several factors. Firstly, the hygienic-sanitary conditions: as viral hepatitis E has the fecal-oral route as its main mode of transmission, this could explain the high risk of transmission as demonstrated by the studies of Traoré *et al.* [32] in Burkina Faso and Amanyia *et al.* [33] in Uganda. Secondly, cooking practices and food handling play a crucial role in the transmission of the virus [16] [21]. The displacement of the population due to conflicts, climate disasters could favor the spread of the virus due to temporary and often unsanitary living conditions [34]. Indeed, Burkina Faso has been experiencing insecurity in the Sahel region for a few years, causing populations and their belongings to move to regions where peace reigns, as a result, these movements bypass human and animal surveillance measures.

Regarding our study, only the consumption of the intestines of animals that

were more associated with the transmission of viral hepatitis E in pregnant women. For several reasons, the consumption of intestines from animals can increase the risk of viral hepatitis E (HVE) infection. The majority of our respondents claim to use already prepared meat instead of cooking with family, because they say it's faster. Insufficient cooking can allow the virus to remain intact, increasing the risk of contamination. To avoid this, it is essential to cook the intestines well in order to eliminate the virus. Indeed, Meng [35] showed that the consumption of lightly cooked or raw offal such as liver or spleen can be the cause of contamination. Lopez-Lopez *et al.* [36] reported contaminations related to the consumption of lightly cooked pork. Pigs and other animals can be carriers of EHV. The consumption of intestines from infected animals could transmit the virus to humans as reported by Renou *et al.* [31] in France, Berto *et al.* [37] in Vietnam, Bari *et al.* [38] in Ethiopia, Diouara *et al.* [24] in Senegal. The identification of the consumption of animal intestines as a main risk factor highlights a specific food transmission mode, particularly relevant in the Burkina context.

## 5. Study Limit

The present study was conducted on pregnant women with a primary data collection. The data collection was largely based on the responses of the interviewees on questions related to the transmission of viral hepatitis E that could lead to memory bias (respondents may not accurately recall events or their dietary practices) or social desirability (participants may give responses that they find more acceptable or consistent with social expectations rather than reporting reality). Since the collection is limited to one structure, this does not allow extrapolation to all other hospitals or to the general population. The serological test used only informs us about the individual's contact with the pathogen, but does not allow us to confirm that the individual is sick. Cross-sectional design prevents causal inference and IgG alone cannot distinguish distant infection from recent infection.

## 6. Conclusion

The overall objective of this work was to study the seroprevalence and associated factors of viral hepatitis E in pregnant women receiving prenatal care at Saint Camille Hospital in Ouagadougou, Burkina Faso. It appears that viral hepatitis E is indeed present in pregnant women with a seroprevalence of 50%. The factors associated with the occurrence of the disease in pregnant women include, among others, the consumption of fresh milk, the consumption of products made from offal, of faith, meat from pigs, cattle or sheep not sufficiently cooked. The hepatitis E virus therefore circulates among the pregnant women surveyed. The seroprevalence obtained indicates the need to reduce poverty, promiscuity and insalubrity while promoting a healthy lifestyle. Systematic screening for viral hepatitis E in pregnant women is necessary in Burkina Faso. Monitoring of disease in animals through awareness of good hygienic practices is recommended. Furthermore, in

order to promote transfusion safety, it is essential to screen blood donors for hepatitis E virus. The combination of other confirmatory tests such as molecular biology with serological ELISA is imperative.

### Ethical Approval

Before the data collection, the Ethics Committee for Health Research (CERS) of Burkina Faso by Deliberation No 2024-07-223 of 23 July 2024 had approved the ethical component of this research project. In addition, the HOSCO Institutional Ethics Committee had also given its approval by Deliberation No 2024-07-003 of July 12, 2024. Written informed consent for participation in the study was obtained from participants.

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### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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