



Epidemiology of HDV infection in Cameroon and challenges of HDV diagnosis

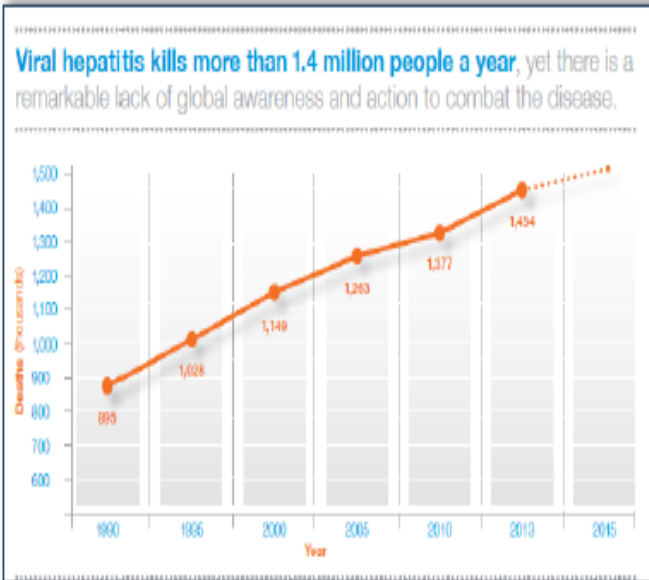
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Webinar « Hepatitis Delta Virus: Screening Barriers Around the World and Management Strategies in the Absence of Treatment »

Wednesday May 11th at 8am CDT/9am EDT/10am BST/2pm WAT/3pm CET/6pm

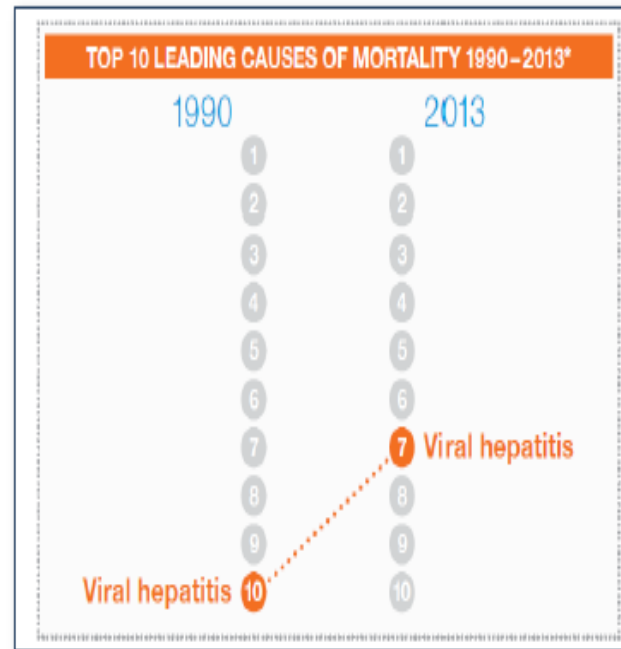
Viral hepatitis: a high and growing global burden

Chronic viral hepatitis B, C and D are the most concerned



400 million persons with chronic HBV or HCV infection

✓ 240 million chronic carriers of HBV

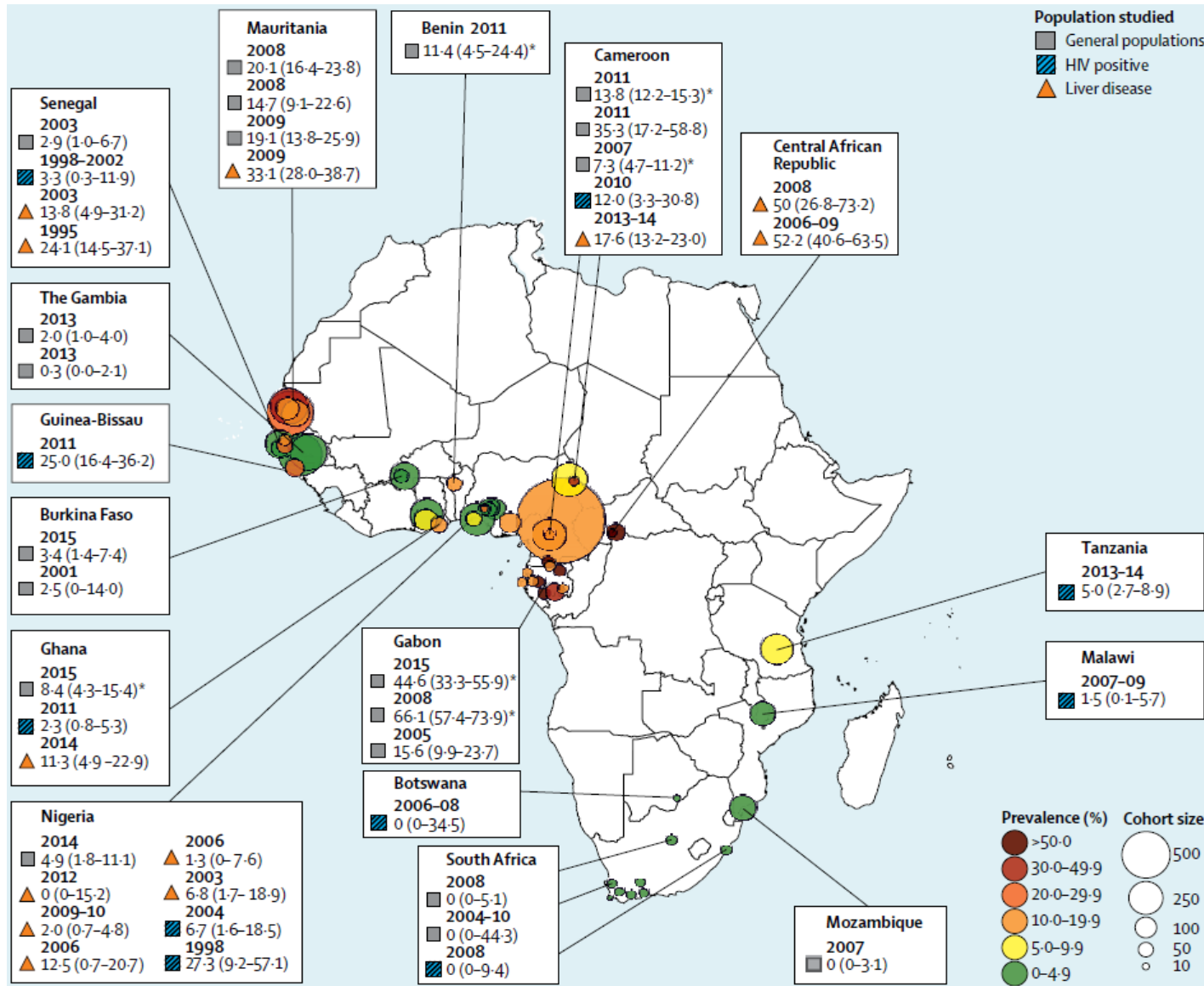


✓ 185 million chronic carriers of HCV

Highest prevalence in Asia and Africa

✓ 15 to 20 million co-infected with HBV/VHD

Prevalence of anti-HDV antibodies in Africa SA



1. Central Africa :

✓ Gen. Pop: **25.64%** (12.09–42.00)

✓ HCC: **37.77%** (12.13–67.54)

2. West Africa :

✓ Gen. Pop : **7.33%** (3.55–12.20)

✓ HCC: **9.57%** (2.31–20.43)

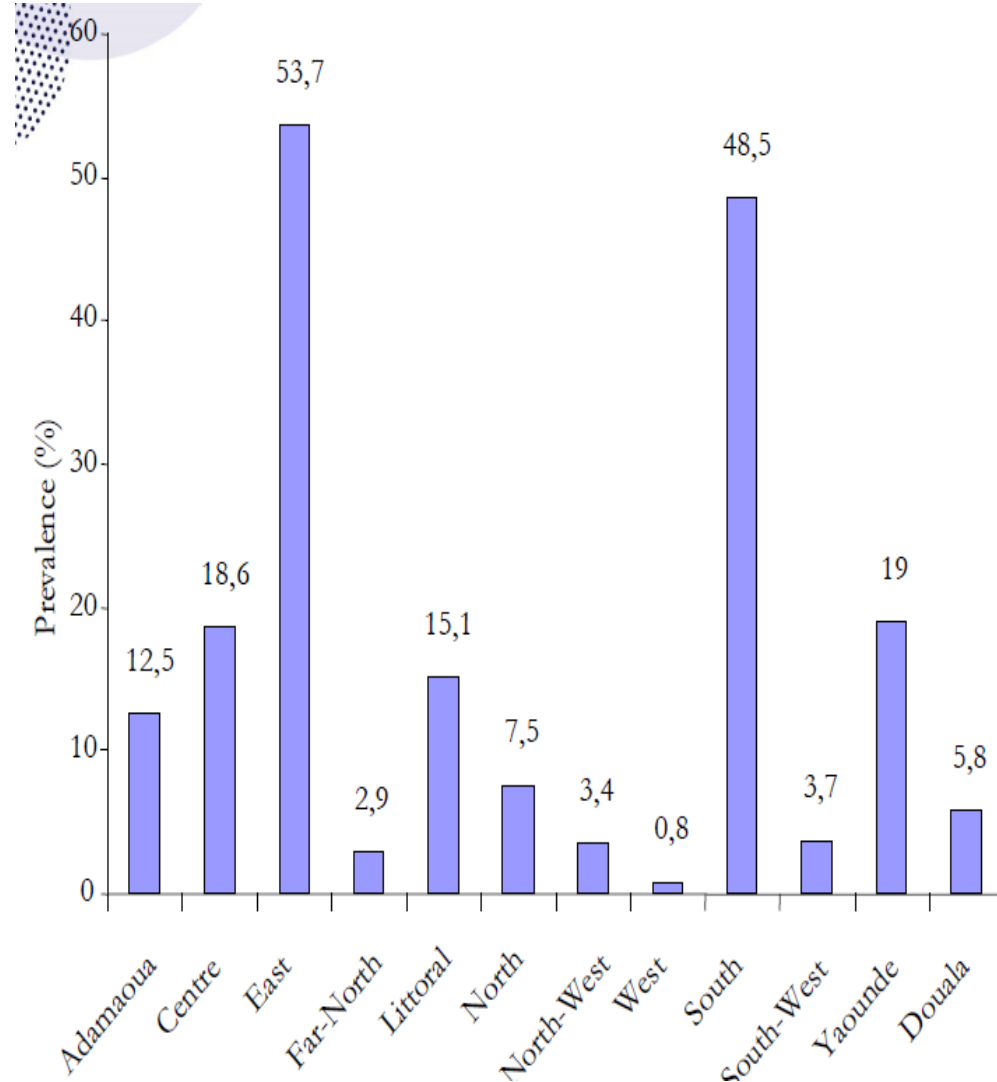
3. East and South Africa :

✓ Gen. Pop : **0.05%** (0.00–1.78)

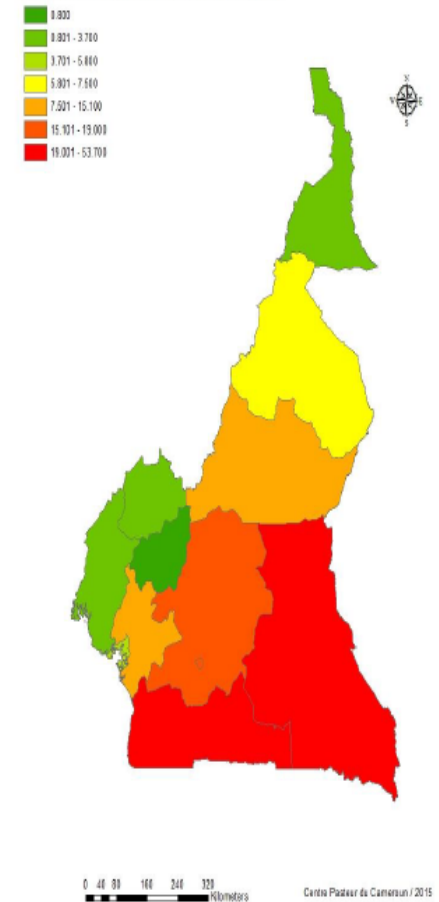
Prevalence of anti-HDV antibodies in Cameroon: ANRS study 12289

DHS 2011; N = 15,000; 15-59 years

	VHD (95 %CI)	P
Sexe		
Men	11.1 (8.8 – 14.0)	0.4
Women	9.7 (7.5 – 12.6)	
Residence		
Urban	10.6 (8.0 – 14.0)	0.95
Rural	10.5 (8.2 – 13.4)	
Statut HIV		
Positive	24.4 (11.7 – 39.6)	<0.05
Negative	9.9 (8.3 – 11.9)	
Total	10.5 (8.7 – 12.7)	

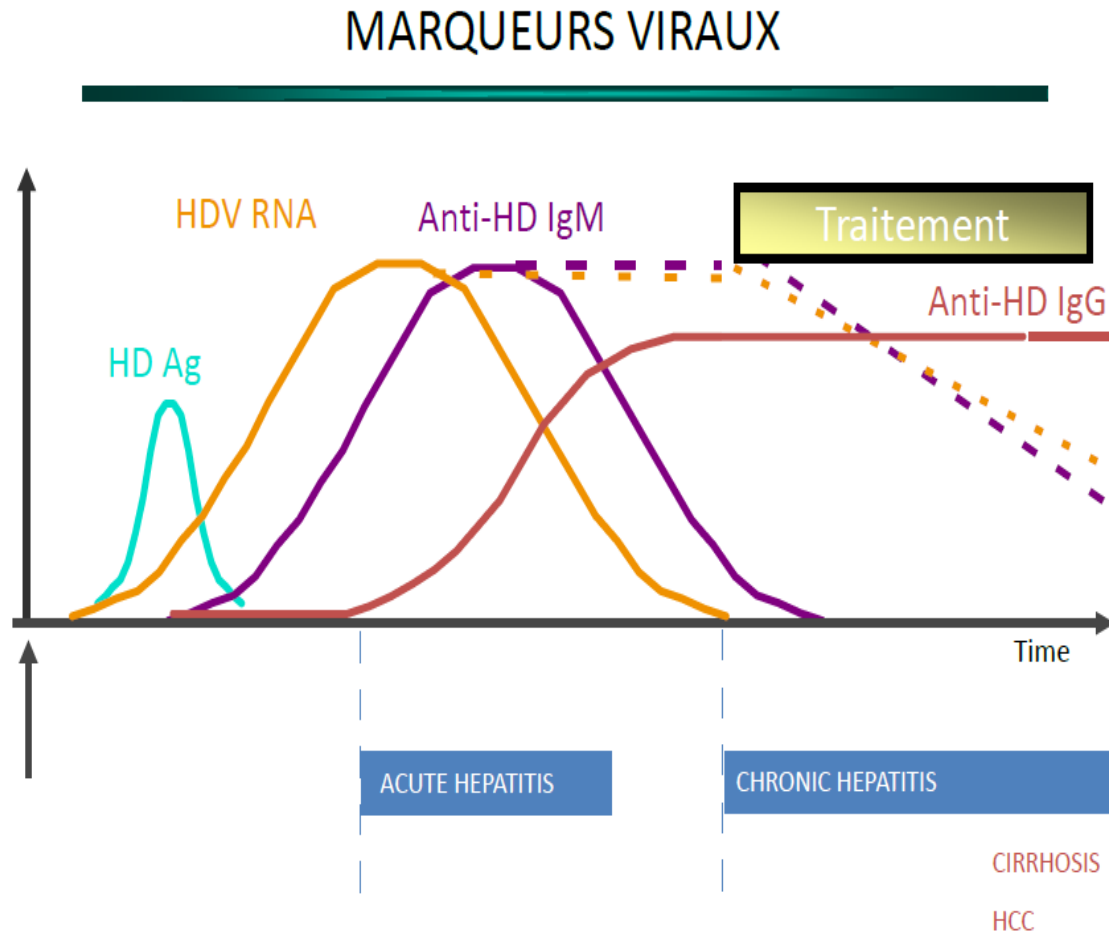


Prévalence des hépatites D au Cameroun (en %)



Markers of the diagnosis of HDV infection

Diagnosis of HDV infection is essentially biological



✓ Indirect diagnosis :

✓ **Anti-HDV IgG Ab (ELISA)**

✓ **Anti-HDV IgM Ab +++**

✓ Persistence = chronic infection +++

✓ NB: may be missing in some African patients

✓ Direct diagnosis:

✓ **Delta Ag : fugitive++**

✓ **Delta RNA**

✓ RT-PCR +++

✓ Quantification by real time PCR +++

✓ HDV genotypes ?

✓ Sequencing

HBV markers : anti-HBc IgM and HBsAg

Challenge for the HDV diagnosis in Africa

In Africa and particularly in Cameroon:

- ✓ **Only HDV IgG antibody tests are available and cost around 50 USD**
- ✓ **The HDV RNA testing is unavailable in local laboratories and is quite expensive for the population when it is necessary to send it to a laboratory abroad (About 200 USD). HDV RNA is the most important marker to use for the therapeutic management of infected people and is not accessible to them.**

Conclusion : Hepatitis D - a forgotten foe ?

- ✓ 40 years after its discovery, HDV remains a challenge for clinicians and researchers.
- ✓ The burden of disease caused by HDV is most probably underestimated since
 - ✓ There is a considerable lack of epidemiologic data from several countries where HBV is highly prevalent.
 - ✓ There is a lack of awareness and the unavailability of appropriate diagnostic tools in hospitals of developing countries.
 - ✓ HDV infection is not routinely tested in clinical practice in many of these African countries and treatment of hepatitis D infections is challenging and largely ineffective.

Thanks

Merci