

The Characteristics of Chronic Viral Disease in a Houston FQHC Asian Patient Population

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Abstract

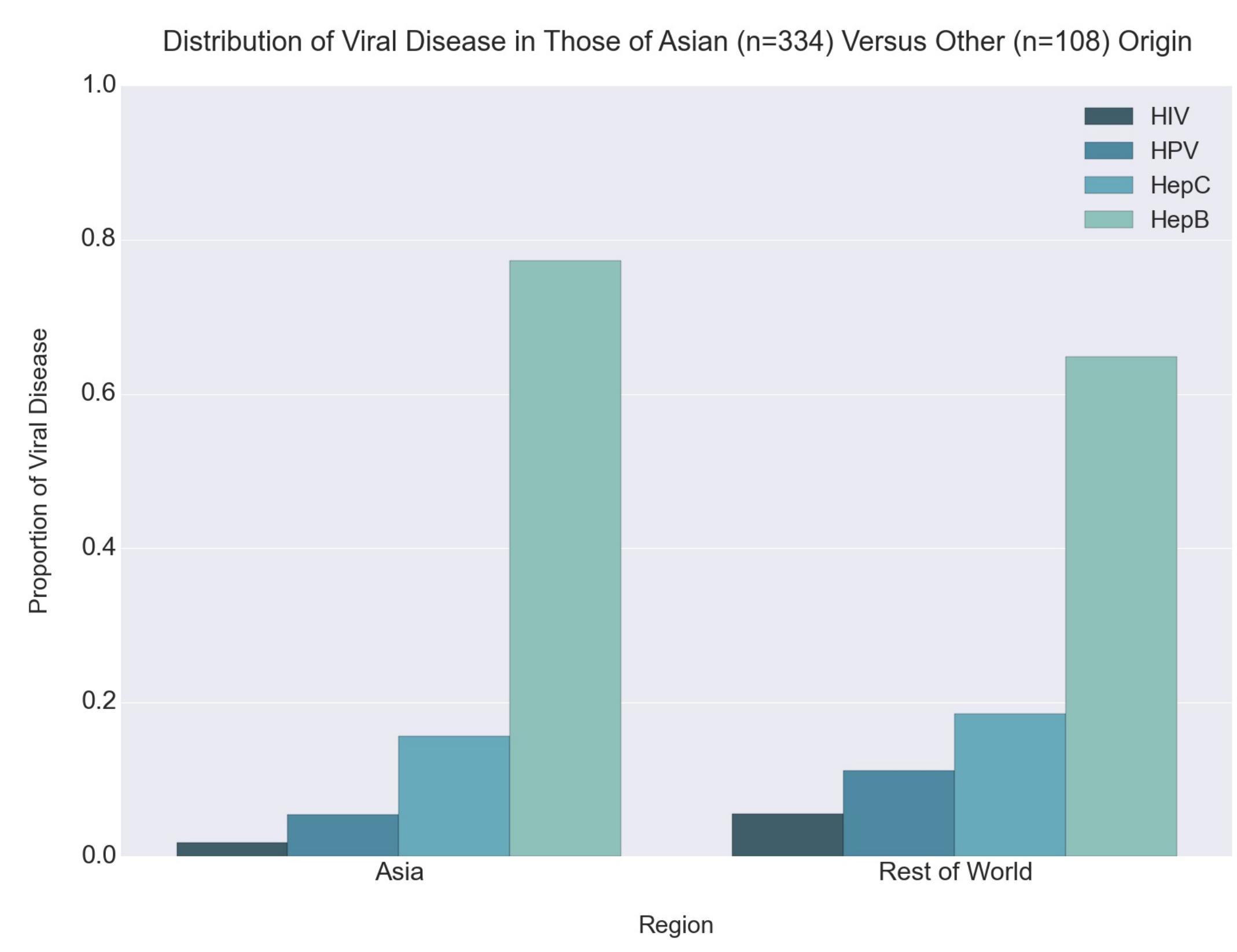
Three classes of viral pathogens are of particular concern to the clinicians at the HOPE FQHC here in Houston: hepatitis B and C, HIV, and high-risk HPV. We present an overview of the prevalence of these viruses in the HOPE Clinic's Asian American patient population using data extracted from the Sevocity EMR database covering the period from April 2009 to January 2014. Included were 20,497 patient records, and 180,140 assessments.

Methods

Data was imported into Python and analyzed using the Pandas library. All plotting was performed with the assistance of the Matplotlib and Seaborn packages, while all mapping was performed using QGIS.

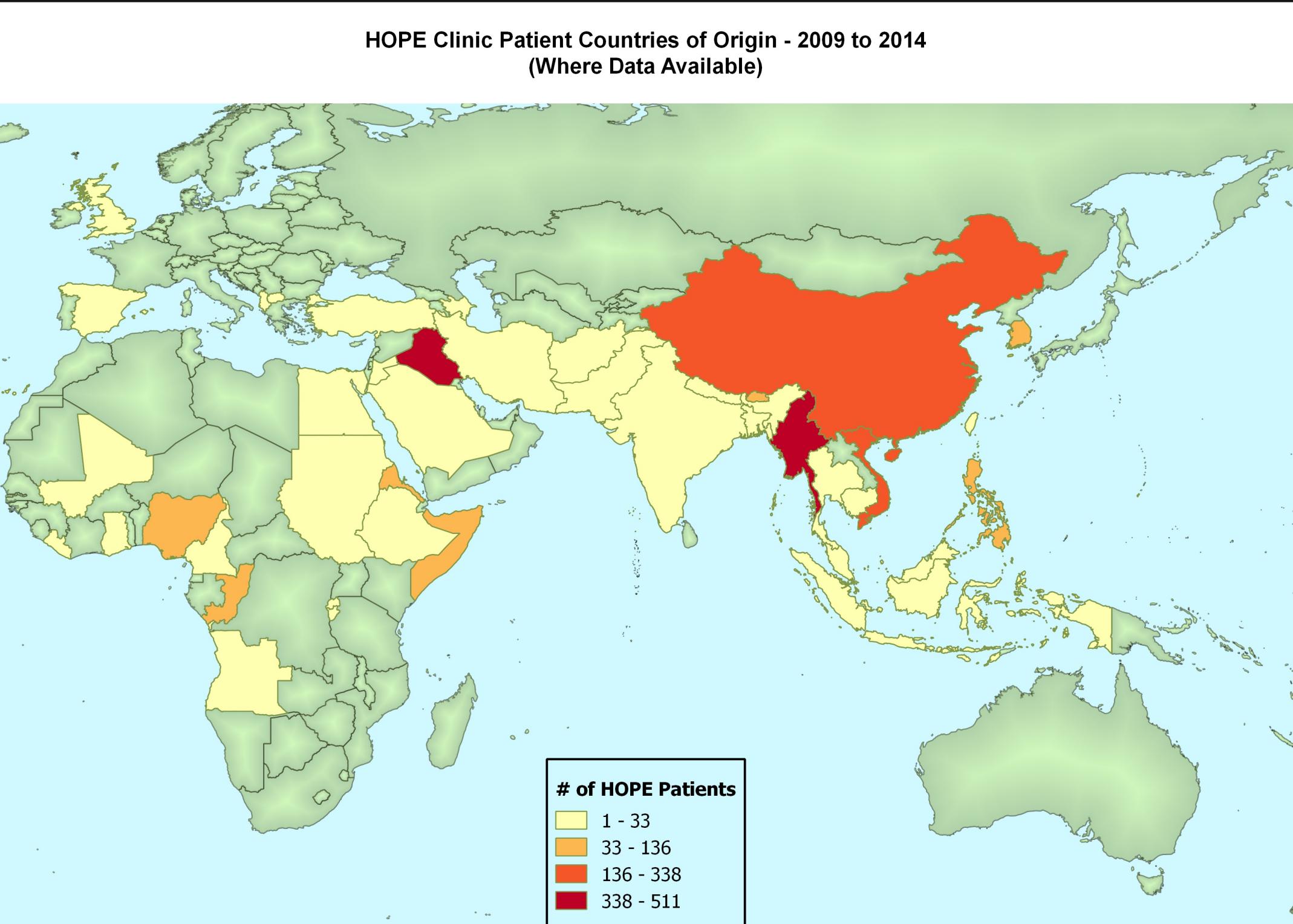
Viral Disease: Asia vs. World

Our analysis found that all of the aforementioned viruses are present in the clinic's Asian patient population. The most common viral infection in this population was hepatitis B, which was diagnosed in 5 times as many patients as hepatitis C - consistent with the epidemiologic literature. HPV was found in around 5% of the Asian population, a smaller proportion than is found in the rest of population.



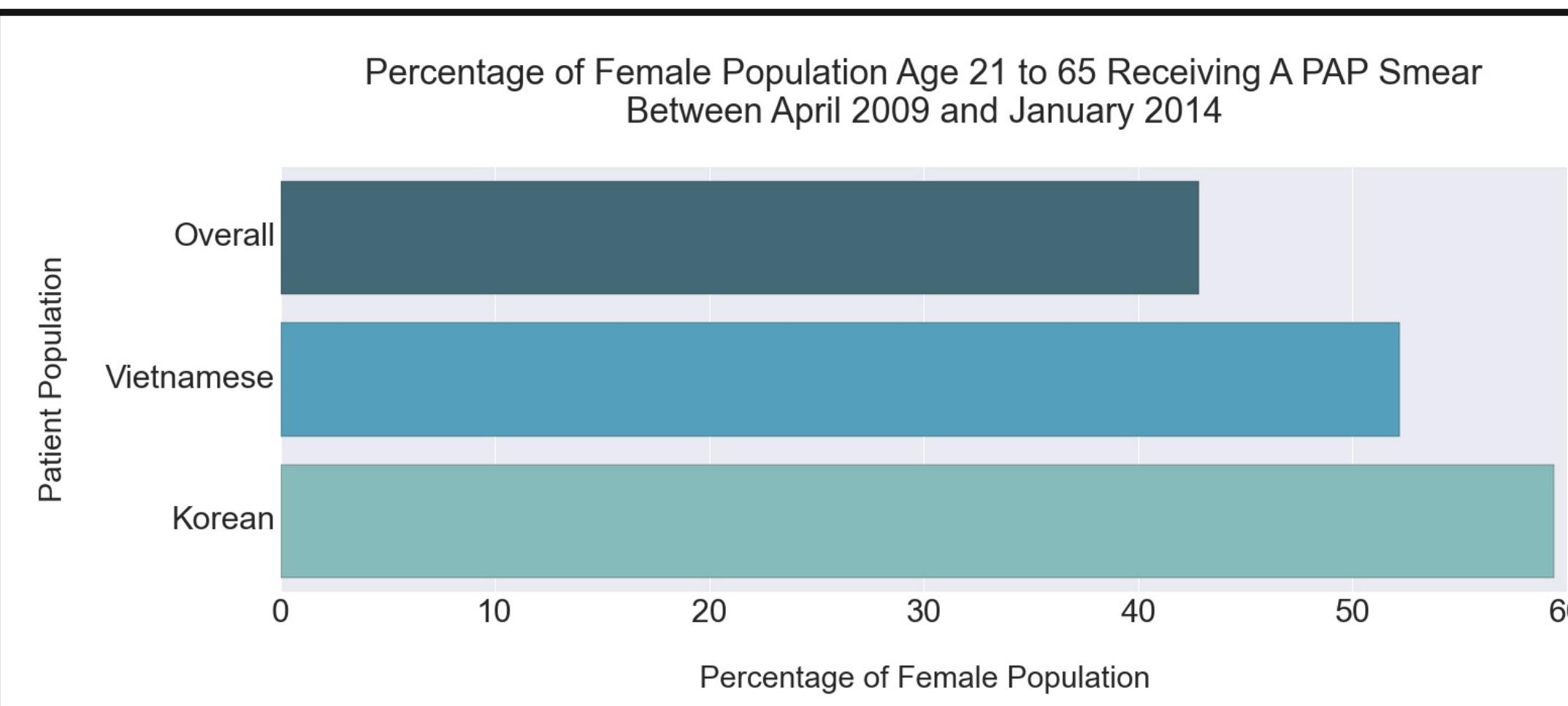
Clinical Population by Origin

The HOPE Clinic serves a diverse patient population. A particularly large segment of our patient population traces their origins to Burma, China and Vietnam.



Screening for Viral Disease

Well established protocols are in place for the screening of HOPE patients for viral disease. We have particularly high screening rates for Korean and Vietnamese women, whom the literature designates as being at higher risk for HPV induced cervical cancer^{1,2}. The low rates of HIV screening may account for the low numbers of diagnosed patients found in our analysis.



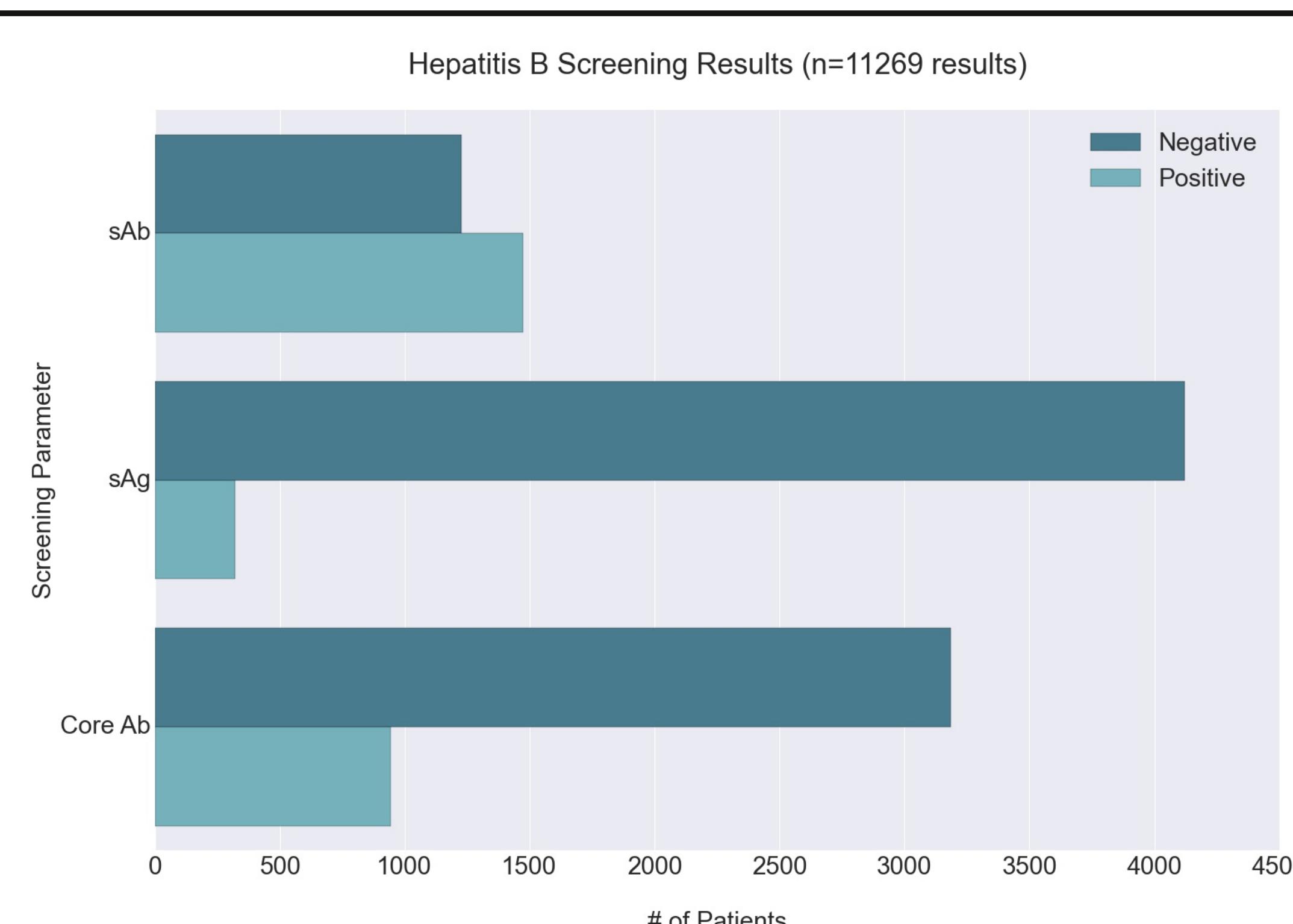
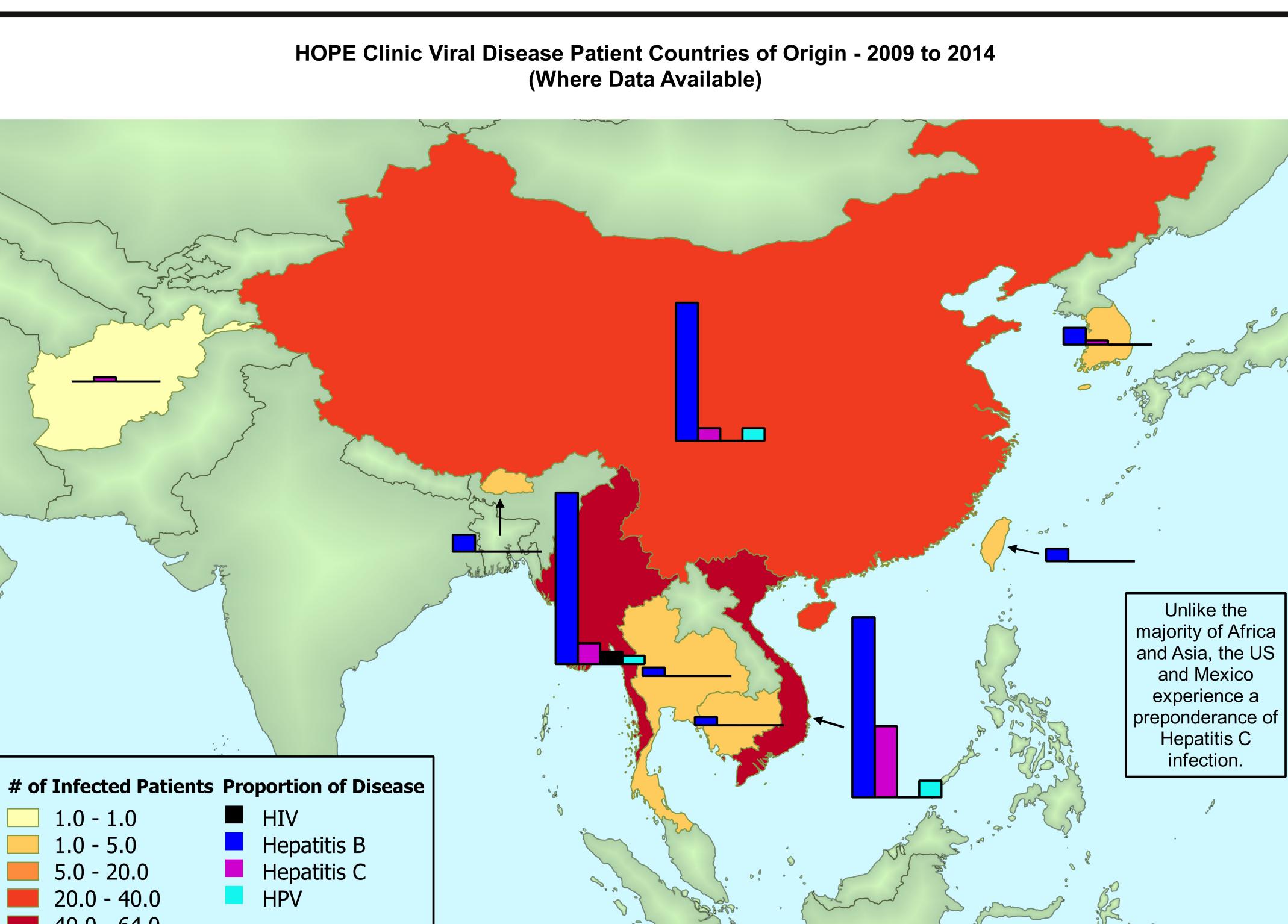
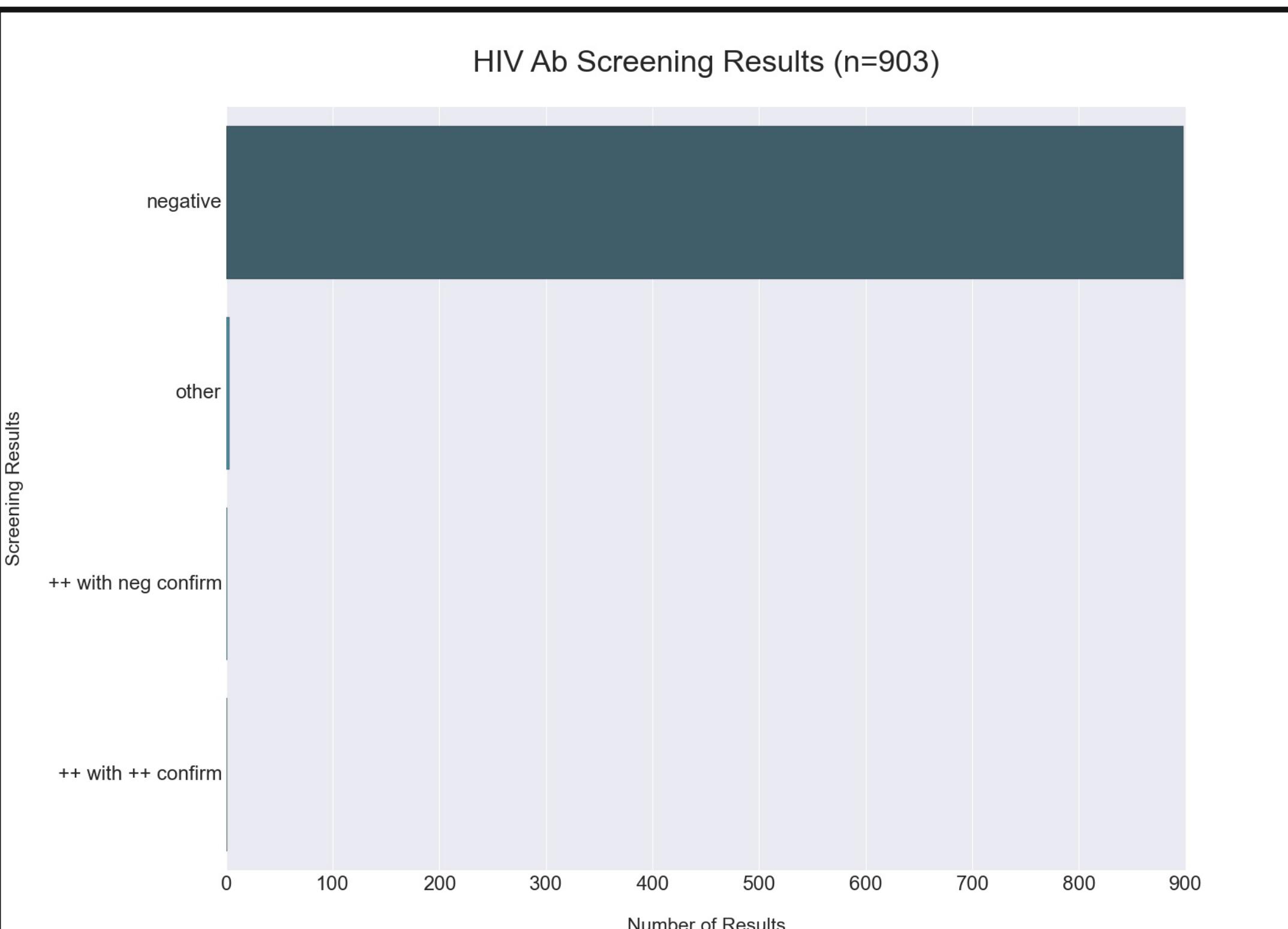
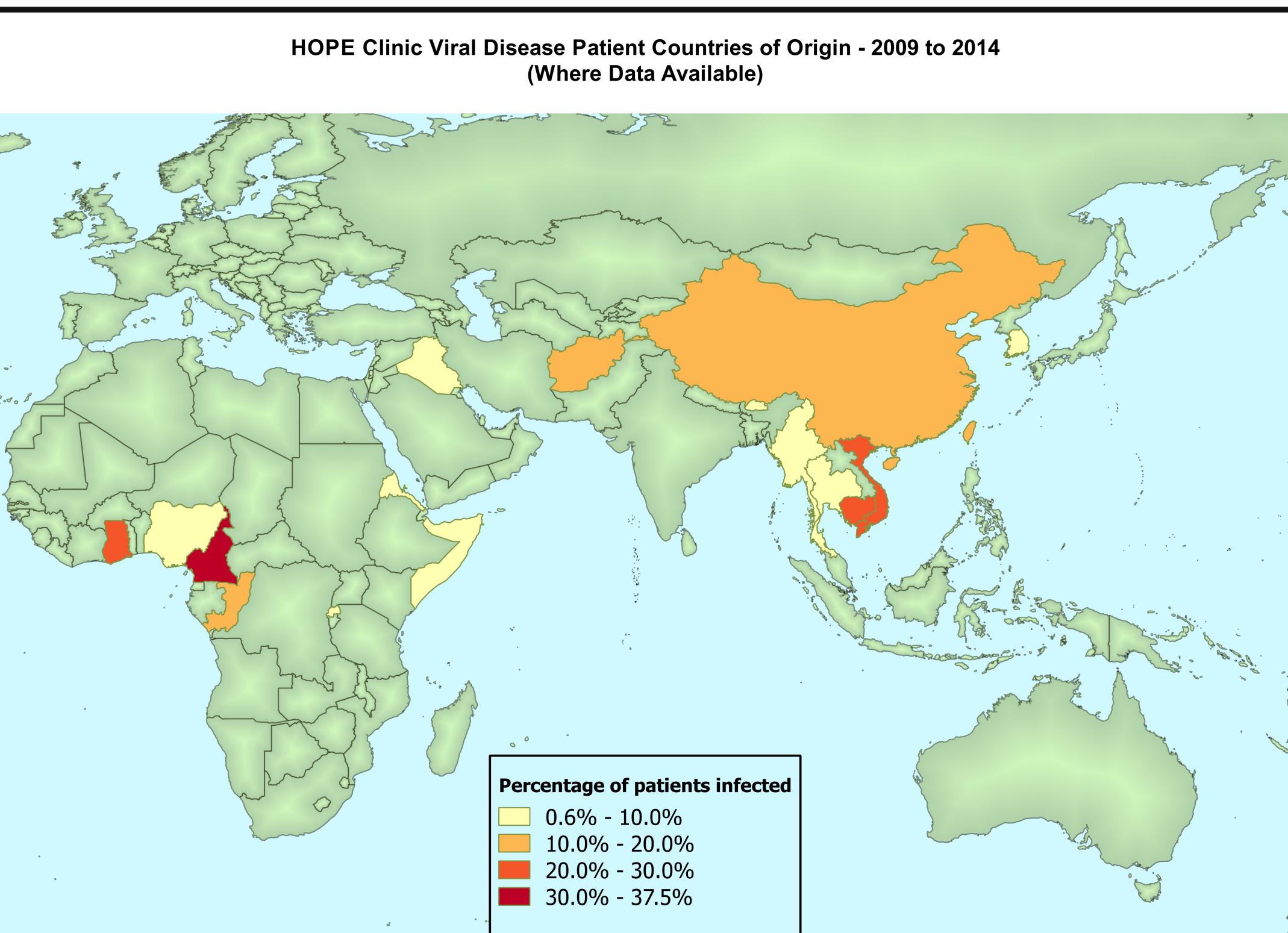
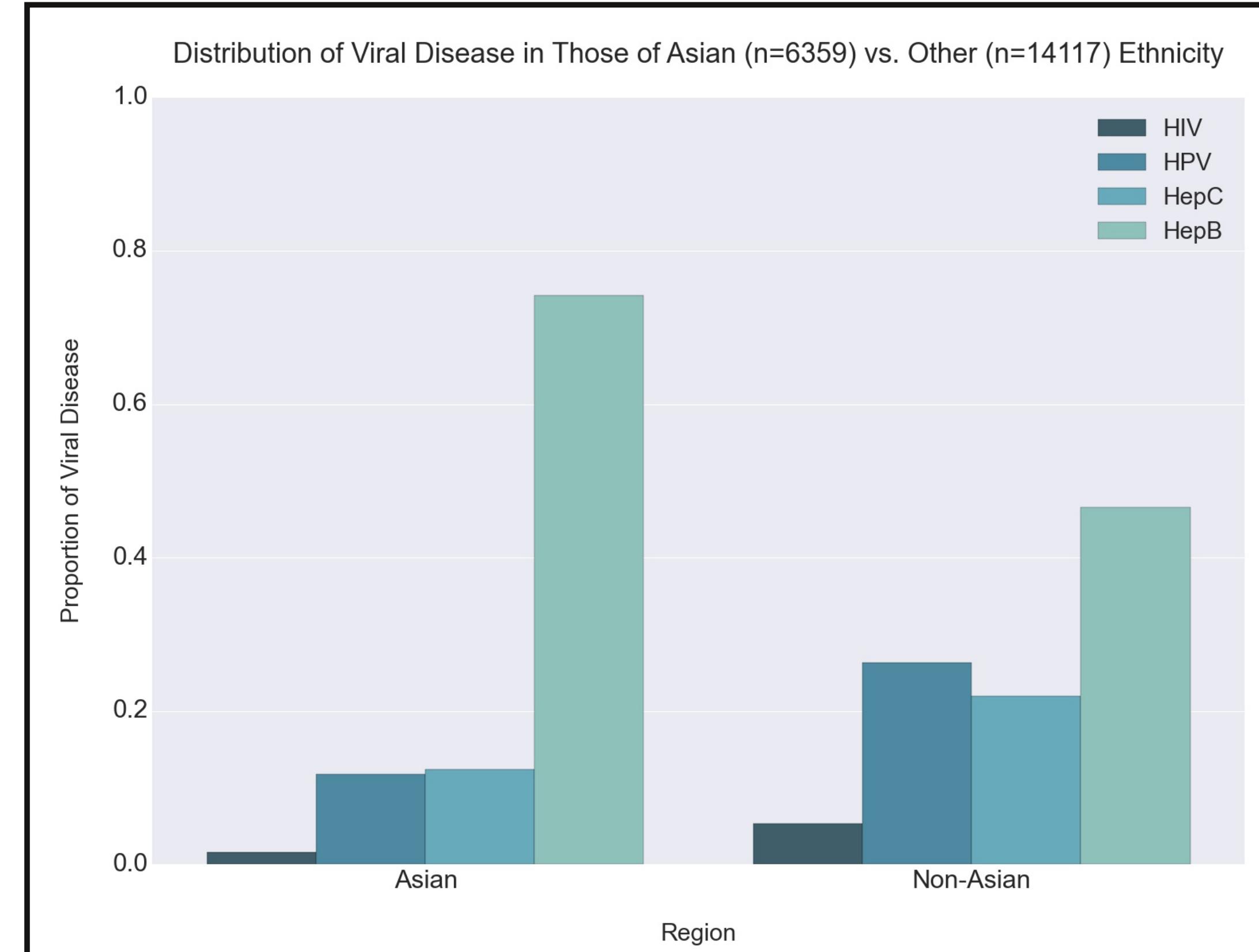
We Need Better Data Collection

The HOPE Clinic serves a culturally diverse patient population, which can present challenges to the provision of linguistically and culturally competent healthcare. In order to best serve our patients, the clinicians and staff of HOPE must be informed of the cultural background and language spoken by each individual, as well as the composition of the overall patient population.

While acquisition of this data in the Sevocity EMR (the source of this dataset) was rather poor, we have made huge strides in improving our data collection in the eCW EMR as a function of its wider range of language choices for entry, and a new protocol which delegates collection to front desk staff rather than clinicians.

	Total # of Patients ¹	Demographics Language ²	"Other" Speaking Patients ²	Flowsheet Languages ³	% With Known Language	Country of Origin	% With Known Origin
Sevocity	20,497	11,137	3,917	1,558	61.94	3,218	15.70
eClinical Works (eCW)	15,562	15,125	402	117	97.94	3,632	23.34

1) As determined by number of chart entries in database
 2) This data may be inaccurate given that it is entered by the front-desk, and because the number of choices are limited to 9 choices in Sevocity (46 in eCW)
 3) Number of Patients whose language was recorded in a secondary flowsheet, rather than demographics



Acknowledgements

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