Community, Equity, Gender                                             Western Heads East

11-15-2017

# The Influence of Primary Health Care (PHC) on Hepatitis B Voluntary Testing in the Upper West Region of Ghana

Florence Wullo Anfaara

Isaac Luginaah

# The Influence of Primary Health Care (PHC) on Hepatitis B Voluntary Testing in the Upper West Region Of Ghana

Florence Wullo Anfaara and Isaac Luginaah (Ph.D.)
Department of Geography
Western University, London, Canada

## Introduction

Hepatitis B virus (HBV) accounts for about 47% of all hepatitis related deaths, and it is the leading cause of liver cirrhosis and liver cancer (World Health Organization, 2016).

Most deaths occur in low and middle income countries due to poor access to critical health care services, high illiteracy rates and endemic poverty.

Ghana is among HBV endemic countries globally (10-15% prevalence rate). Overall contribution of HBV related deaths to national mortality rate has increased by 17.2% in the last two decades largely due to limited uptake of voluntary testing for early detection and treatment (The Global Burden of Disease Chart, 2016).

Relatedly, high endemic regions are associated with disproportionally low rate of testing and knowledge of hepatitis B status. It has been reported in different studies across developing
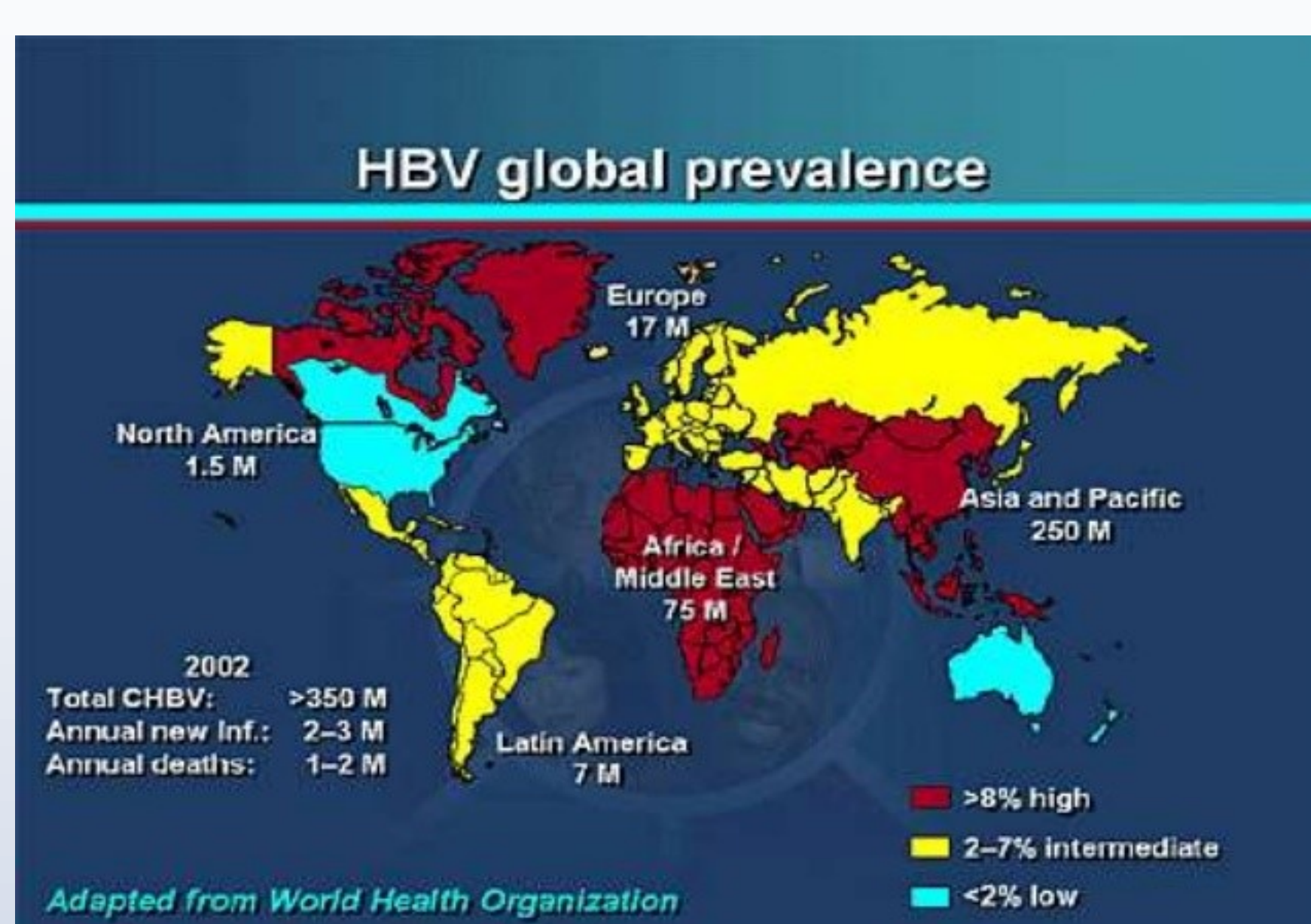


countries that less than 5% of people infected with chronic HBV know their status (WHO, 2016; Painter, 2001; UNICEF, 2008).

Voluntary testing over the years has proven to be the best alternative to reducing the spread of infectious diseases. It is associated with changes in risky health behaviors and adoption of healthy lifestyles (MacPhail et al., 2013)

PHC facilities serve as a source of health information and promotion of testing in most rural areas in Ghana.

### Research Question

Does type of PHC facility impact HBV voluntary testing among residents in the UWR of Ghana?

## Methodology

### Data

Cross-sectional survey conducted on randomly sampled males and females above 18 years (n=1,374) in the UWR from June to August 2016.

The sampling technique followed the Ghana Statistical Service multi-staged sampling method, where four districts where randomly drawn from the eleven districts in the region in the first stage of sampling.

To further promote randomness in the selection of participants, the study interviewed the household member whose birthday was closer to the date of the data collection, regardless of the person's sex.

### Measures

Dependent variable: HB voluntary testing
    Binary variables coded as "0"= required ad "1"= voluntary

Key independent variable: Place of primary health care
    'Where do you go for healthcare'



RA interviewing a household head in Wa Municipality



Picture of a household in Wa West District

## Results

### Table 1: Distributions of selected variables

| Variable | % of respondents |
|---|---|
| | (n=380 ) |
| **HBV testing** | |
| Voluntary | 18.42 |
| Required | 81.58 |
| **Source of health care** | |
| Hospital | 51.05 |
| Clinic | 13.68 |
| CHPS | 35.26 |
| **Place of residence** | |
| Urban | 39.74 |
| Rural | 60.26 |
| **District of residence** | |
| JWa West | 37.11 |
| Jirapa | 18.95 |
| Sissala East | 14.21 |
| Wa Municipal | 29.74 |
| **Wealth Quintile** | |
| Richest | 20.00 |
| Rich | 20.00 |
| Middle | 20.53 |
| Poor | 19.47 |
| Poorest | 20.00 |

### Table 2: Multivariate complementary log-log regression estimating HBV voluntary testing

| | Model1 | Model2 | Model3 |
|---|---|---|---|
| | OR (Std. Err) | OR (Std. Err) | OR (Std. Err) |
| **Source of health care (ref: Hospital)** | | | |
| Clinic | 2.370(0.749)*** | 2.518(0.849)*** | 2.271(0.892)** |
| CHPS | 1.625(0.488) | 2.008(0.645)** | 2.533(0.863)*** |
| **Place of residence (ref: Urban)*** p<0.01, ** p<0.05, * p<0.1; standard errors in parenthesis; all models are adjusted for clustering.** | | | |
| Rural | 0.890(0.262) | 1.066(0.337) | 1.161(0.358) |
| **District of residence (ref: Wa West)** | | | |
| Jirapa | 1.154(0.351) | 1.372(0.468) | 1.605(0.729) |
| Sissala East | 0.082(0.084)** | 0.098(0.100)** | 0.141(0.180) |
| Wa Municipal | 0.907(0.260) | 0.880(0.265) | 1.101(0.368) |
| **Wealth Quintile (ref: Richest)** | | | |
| Rich | | 1.192(0.437) | 1.041(0.377) |
| Middle | | 1.106(0.464) | 0.672(0.313) |
| Poor | | 0.901(0.404) | 0.377(0.186)** |
| Poorest | | 0.603(0.286) | 0.296(0.156)** |

*** p<0.01, ** p<0.05, * p<0.1; standard errors in parenthesis; all models are adjusted for clustering.

## Discussion

- CHPS, clinics and health centres may be meeting their community outreach mandates resulting in the voluntary uptake of HB testing.

- Hospitals in the UWR may be concentrating on curative care to the neglect of community outreach

- There are financial barriers to HBV voluntary testing as higher socioeconomic status was a determinant of voluntary testing among residents.

### Policy Recommendation

- Need for a comprehensive national policy on HB prevention and treatment in Ghana

- Remove financial and other barriers to voluntary HBV testing.

- Clinics, Health Centres and CHPS should be resourced to intensify community outreach programs

### Acknowledgement



QUEEN ELIZABETH Scholars