

# Hepatitis B vaccination among health care workers exposed to blood and body fluids in Kenya, 2011-2014

Mercy Njeru, Technical Advisor Biosafety and Infection Control

Daniel Kimani, Samuel Mwalili, Samuel Kamiru, Japheth Gituku, Rachel Kamau, Jane Mwangi

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# Outline

- ❑ Background
- ❑ Methods
- ❑ Results
- ❑ conclusions



## Introduction

- ❑ Health care workers (HCWs) are at high risk of acquiring blood borne pathogens
- ❑ These include Human Immune Deficiency Virus (HIV) and Hepatitis B virus (HBV) through occupational exposure to blood and body fluids.
- ❑ Worldwide, occupational exposures account for 2.5% of HIV cases and 40% of HBV among HCWs.
- ❑ In Kenya, HBV prevalence in the general population is 4-6%
- ❑ HCWs estimated to be at four times higher risk of infection than the general population

# Introduction

- ❑ HBV is highly transmissible but preventable by vaccination
- ❑ HBV vaccination coverage in Kenya among HCWs low due to
  - Lack of awareness
  - Low risk perception
  - Low priority given by health management teams
  - Poor coordination among various departments on reporting, testing and vaccination

## Goal of the study

- a) Determine the rates of exposures to blood and body fluids among HCWs
- b) Determine the rate of access to HBV testing  
Baseline testing for HBV using Hepatitis B surface Antigen (HBsAg) test for HCWs
- c) Determine the vaccination status of exposed HCWs

# Methods

- ❑ Study Design: cross-sectional study
- ❑ Data abstraction tool developed and piloted and data collection team trained
- ❑ Consent obtained from facility management
- ❑ Period: March 2015
- ❑ Data on exposures abstracted from post exposure prophylaxis (PEP) registers for the period between January 2011 and December 2014
- ❑ Data collected on Samsung Tablets

# Multi-stage sampling of the facilities



Total of 53 facilities including 50 MOH and 3 FBO from high, med and low HIV incidence  
NTRH-National teaching and referral hospital; CRH-County referral hospital; SCH-Sub-county hospital; HC-Health center

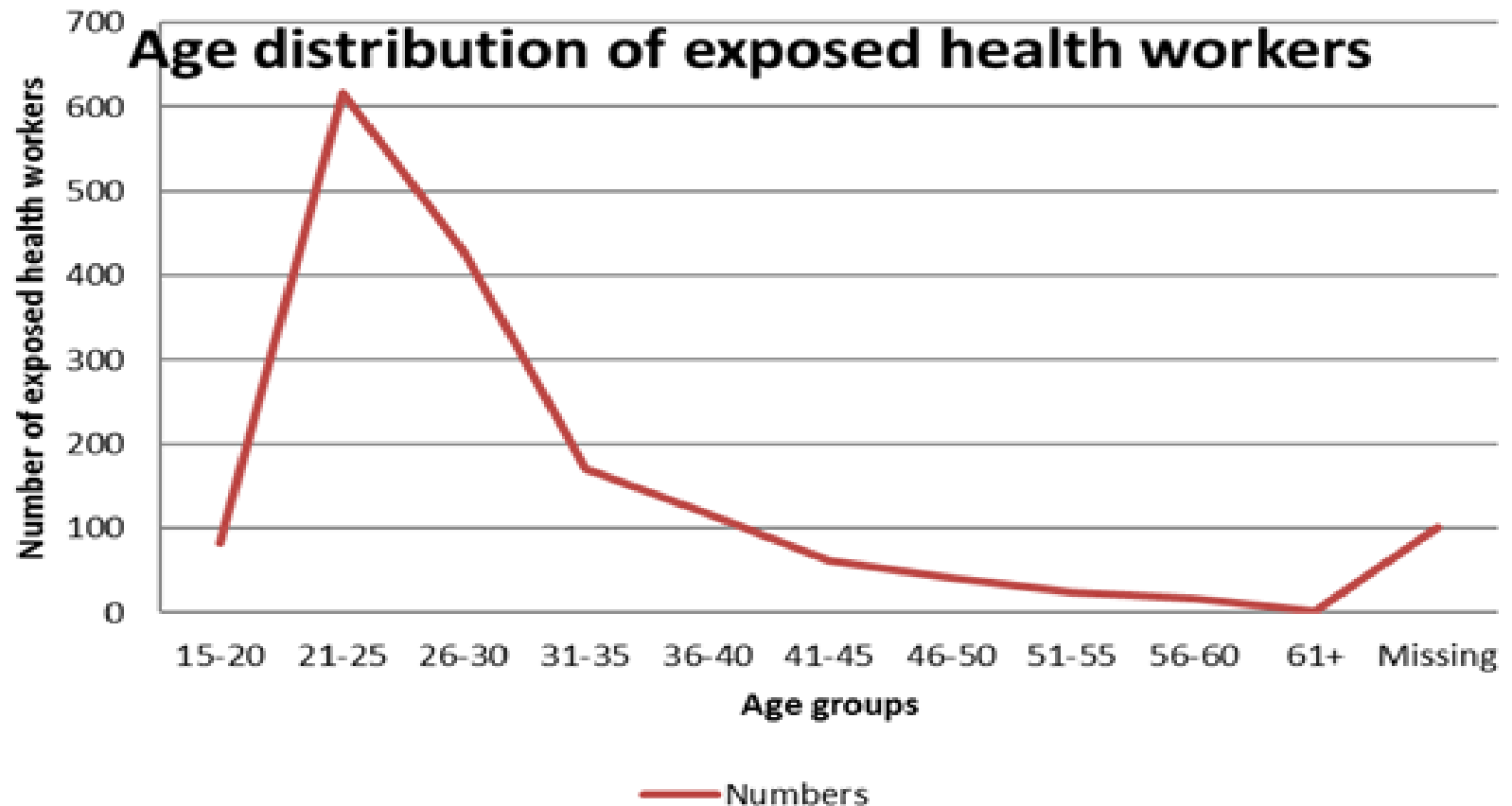
## Results 1: Exposed HCWs by sex

Distribution of exposed HCWs by sex		
Male	786	47.20%
Female	788	47.40%
Missing	91	5.40%
	1665	100.00%

Distribution similar for both male and female

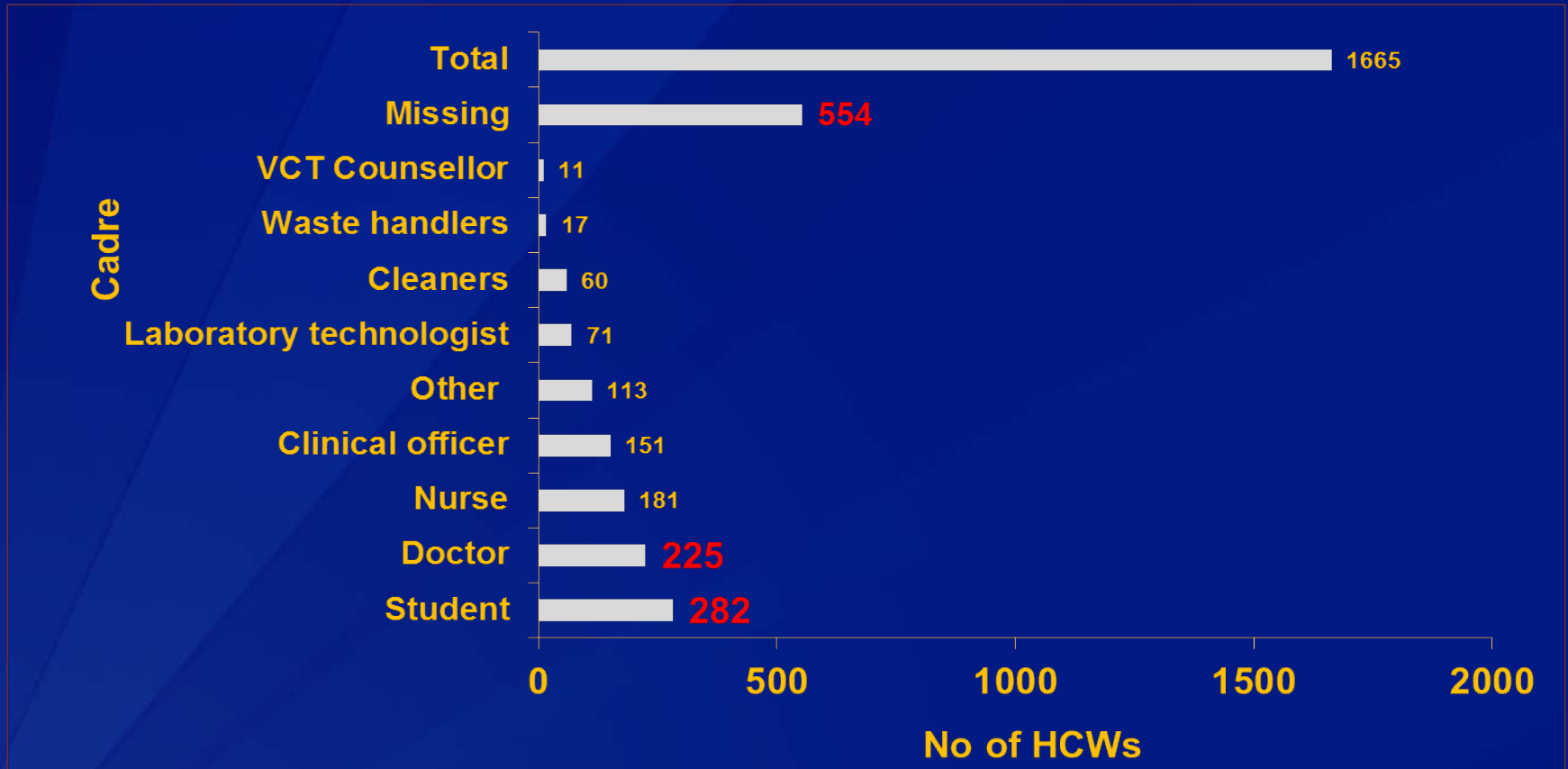


## Results 2: Age distribution



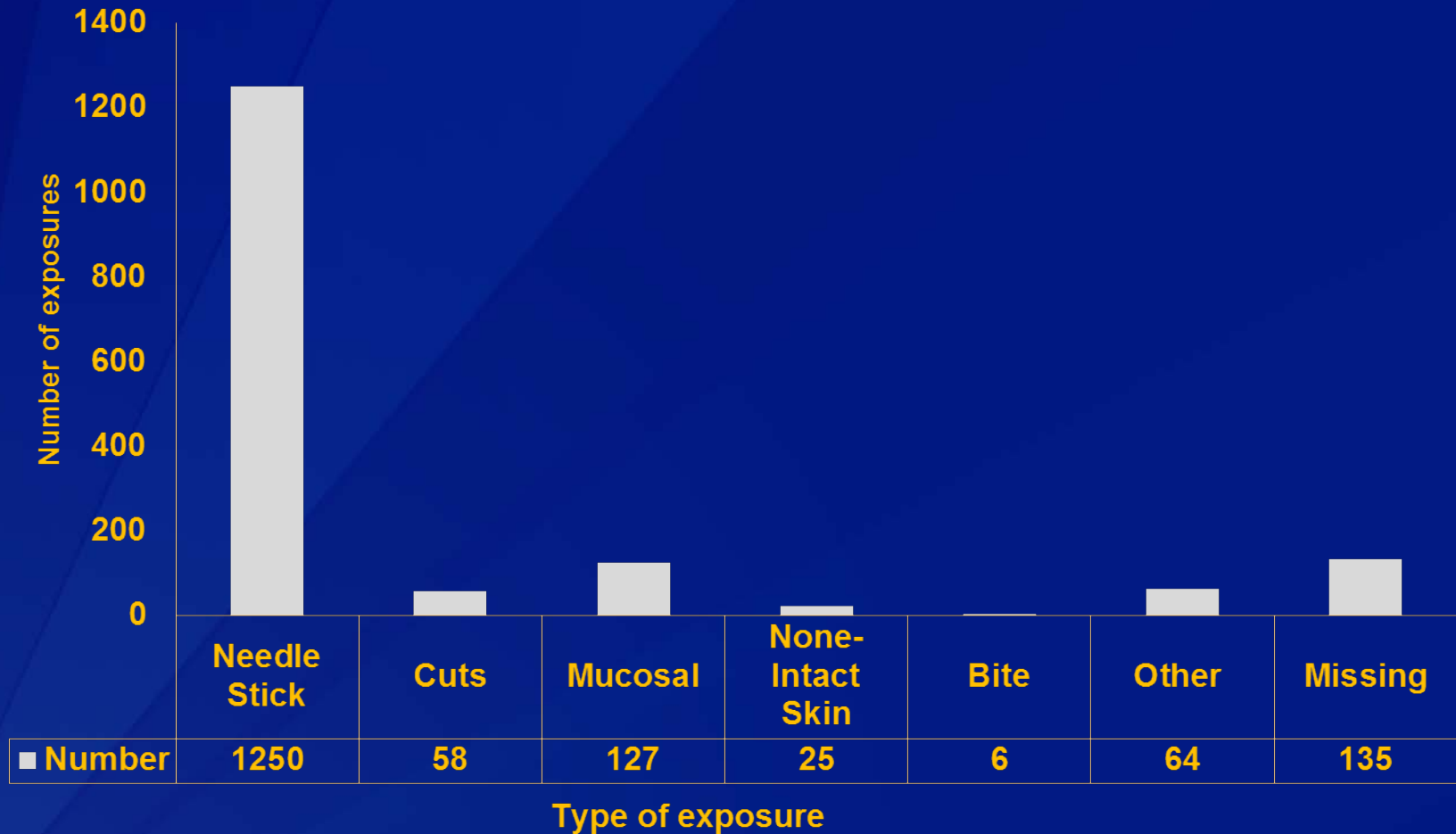
Mean age = 29 years  
median age = 26 years  
SD = 8 years

## Results 3: Cadre of HCWs



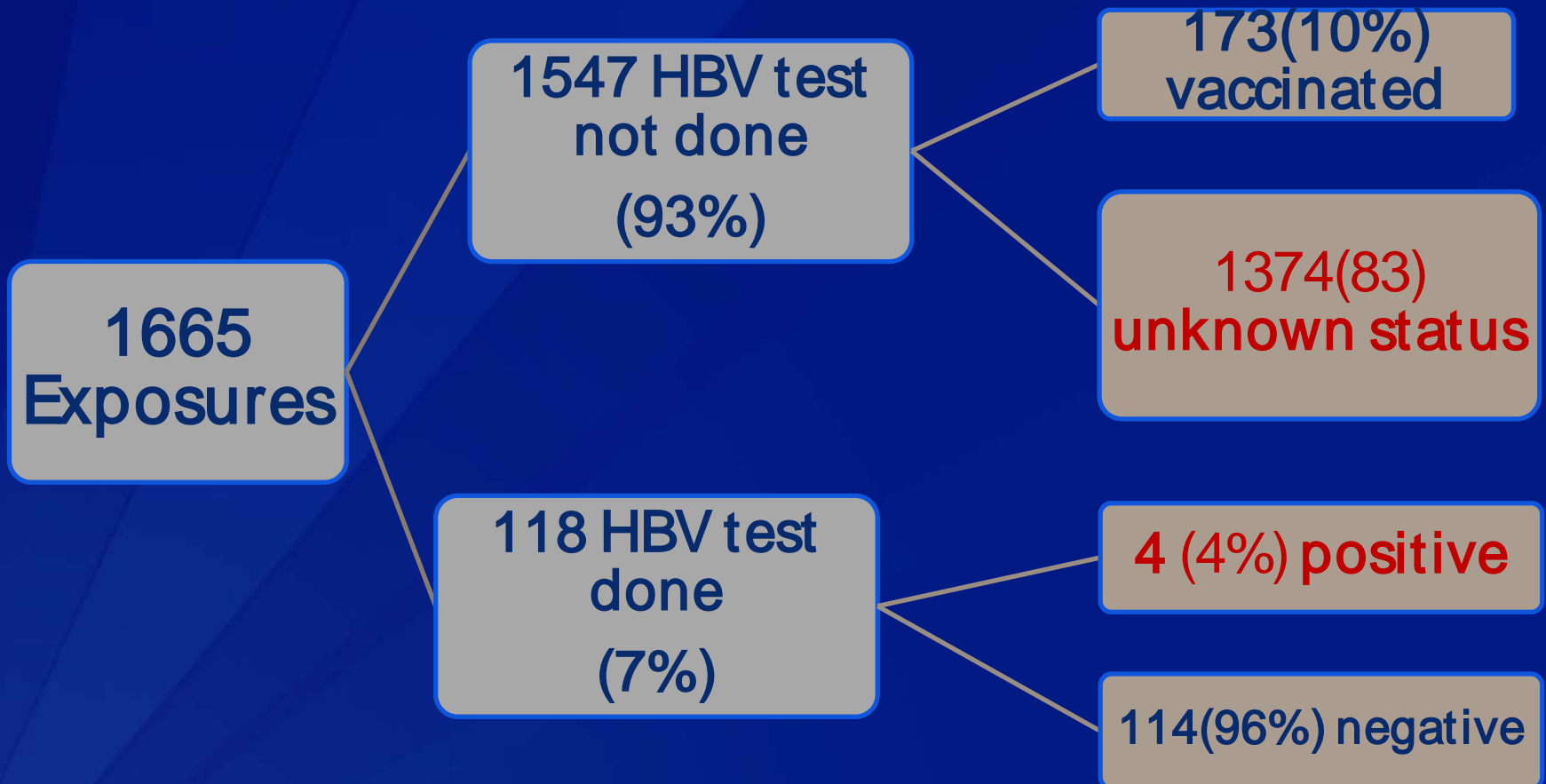
Poor documentation with 554 records not indicating cadre  
Students and Doctors had the highest number of exposures,

## Distribution by type of exposures



Needle stick injuries highest=75% of the reported exposures

## Results 4: Baseline HBV tests



90% of the exposed HCWs not vaccinated against HBV

## Conclusion

- ❑ Majority of HCWs who had experienced exposure to blood and body fluids were not vaccinated against HBV
- ❑ HBV infection among HCWs who accessed a baseline test was similar to HBV prevalence in the general population
- ❑ Students and doctors were most frequently exposed to blood and body fluids
- ❑ Needle stick injuries were the most common type of exposures
- ❑ There was poor documentation on cadre of the HCWs baseline HBV testing and HBV status,

## Recommendation

- ❑ Routine vaccination of all health care workers and students before assignments in clinical areas
- ❑ HBV tests be available for all exposed HCWs
- ❑ Training on injection safety and phlebotomy for students before practicing in clinical settings
- ❑ Improve documentation as relates to occupational exposures-Availing standardized registers
- ❑ There's need to strengthen occupational safety and health programs
- ❑ Strengthen exposures surveillance

# Acknowledgements

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- ❑ Field teams





# Thank you.

For more information please contact CDC-Kenya

E-mail: [info@ke.cdc.gov](mailto:info@ke.cdc.gov) Web: [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Center for Global Health  
CDC in Kenya

