



# Determining the Optimal Cervical Carcinoma Screening Method in HIV positive and HIV negative Cambodian Women

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# Disclosures

- No financial relationships or conflicts of interest to disclose

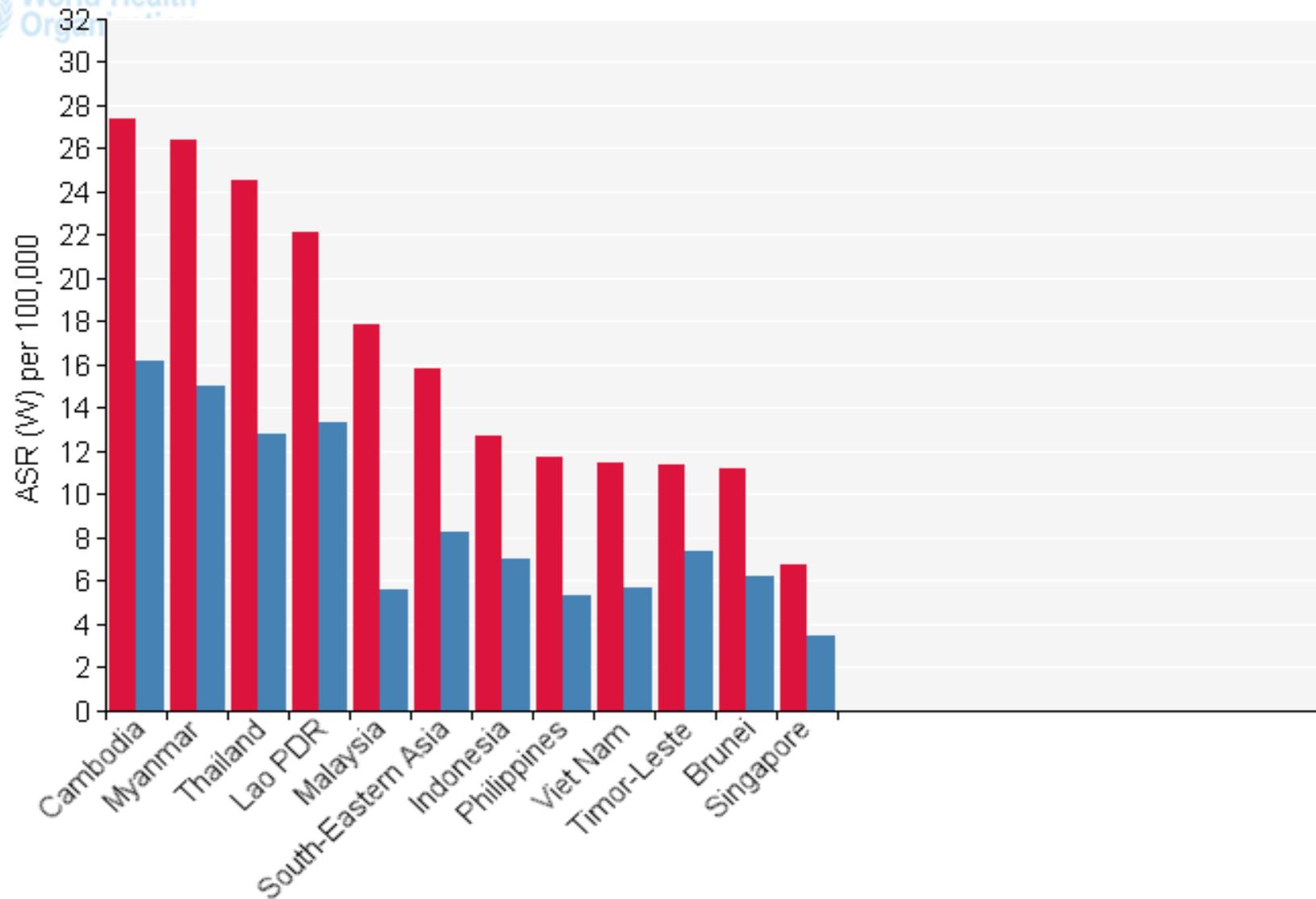




# Angkor Wat temple



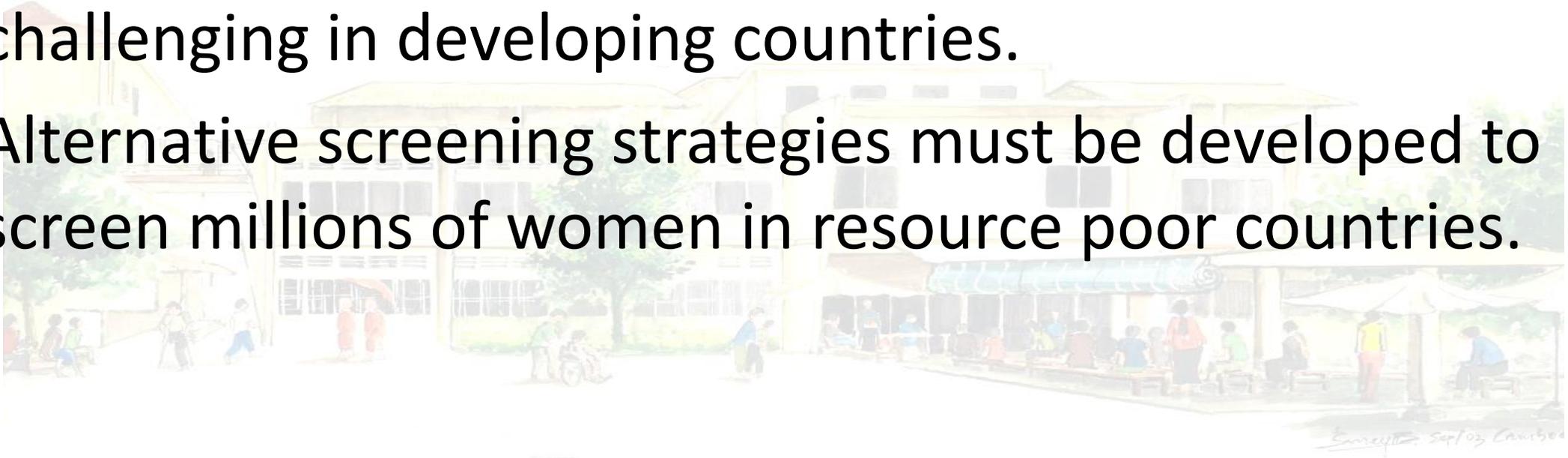
- The most Ancient seven wonders of the world.
- The Khmer King Suryavarman II in the early 12<sup>th</sup> Century.



■ Incidence  
■ Mortality

# OBJECTIVE

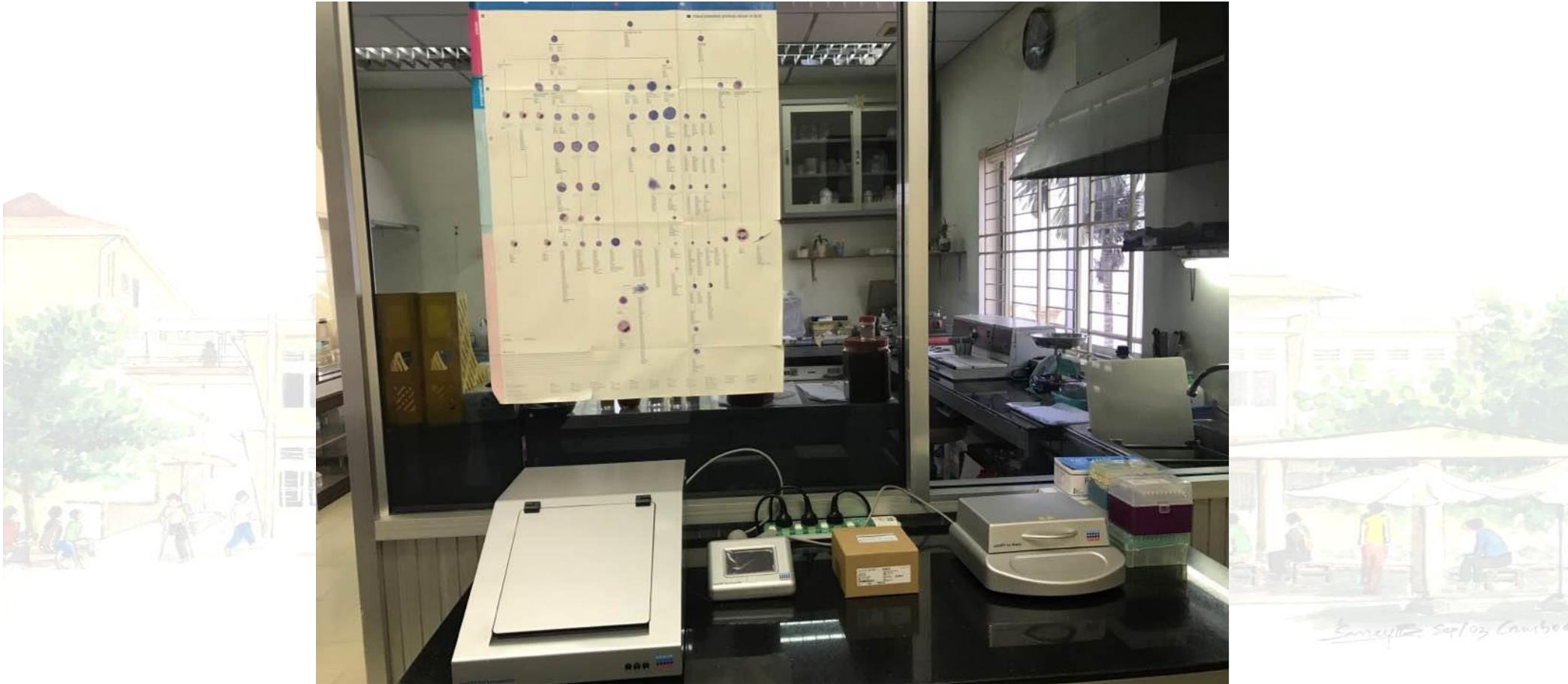
- Traditional Cytology –based cervical cancer screening challenging in developing countries.
- Alternative screening strategies must be developed to screen millions of women in resource poor countries.



# METHODS

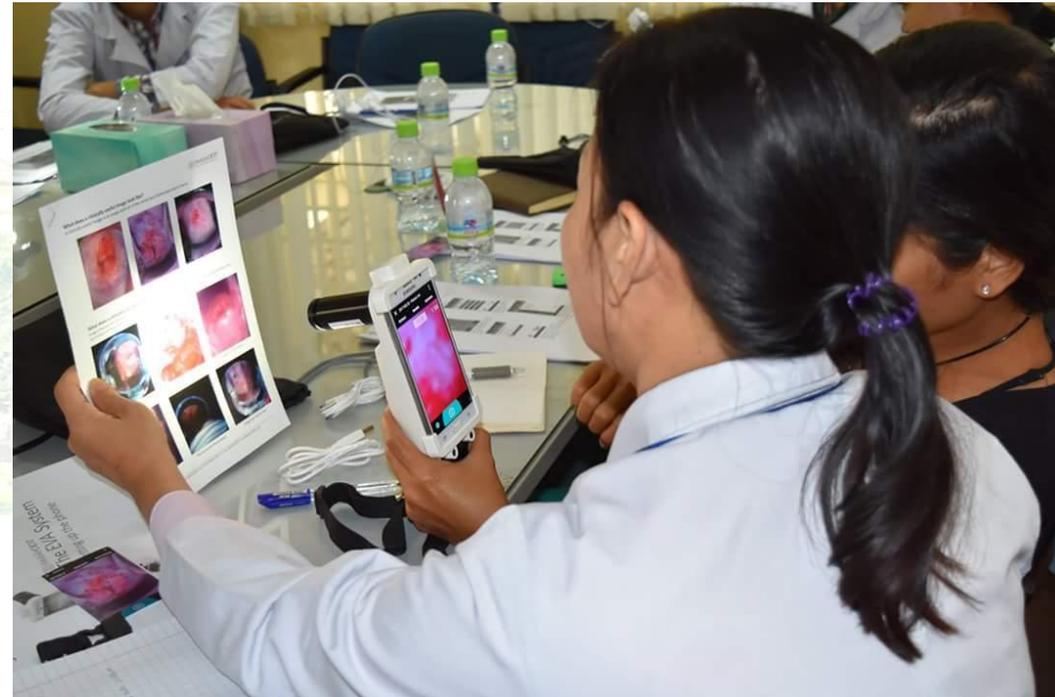
<b>Study design</b>	Cross-sectional study
<b>Age range</b>	30 – 49 years
<b>Study population</b>	250 (129 HIV+ / 121 HIV -)
<b>Study period</b>	1 year (18 October 2016- 18 October 2017) (Recruit only 4 months from 18 May to 13 September 2017)
<b>Setting, Sponsor</b>	SHCH, Phnom Penh, Cambodia, The Gynecologic Cancers Research Foundation
<b>Screening methods</b>	1-Self-sample HPV testing (careHPV™ system, Qiagen, Maryland), 2- Clinician-collected HPV testing 3-Visualization with Acetic Acid (VIA) 4- Digital Cervicography (DC) with the EVA™System(MobileODT, Israel).

# Care HPV™



**signal-amplification, rapid batch diagnostic test for high-risk HPV DNA**

# Digital Cervicography (DC) with EVA™ System



# Results

	HIV (+) 129	HIV (-) 121	Total 250
<b>HPV (+)</b>	<b>37 (28.6%)</b>	<b>19 (15.7%)</b>	<b>56 (22.4%)</b>
HPV(-)	92 (71.3%)	102 (84.2%)	194 (77.6%)
<b>DC(+) and VIA(+)</b>	<b>23 (17.8%)</b>	<b>13 (10.7%)</b>	<b>36 (14.4%)</b>
DC(-) and VIA(-)	106 (82.1%)	108 (89.2%)	214 (85.6%)
<b>Cervical biopsy CIN 1 and CIN 2</b>	<b>20 (15.5%) (CIN 1=17 &amp; CIN2=3)</b>	<b>8 (6.6%) (CIN1=7 &amp; CIN2=1)</b>	<b>28 (11.2%) (CIN1=24 CIN2=4)</b>
<b>Refused cervical biopsy</b>	<b>3 (2.3%)</b>	<b>5 (4.1%)</b>	<b>8 (3.2%)</b>

- Self-sampling identified 50/56 (89%)
- Physician obtained specimen only 45/56 (80%)
- Digital cervicography was able to differentiate between HGSIL and LGSIL all 28 women who had cervical biopsy.

# Conclusion (1)

- Care HPV™ allows rapid and inexpensive detection of HR+ HPV.
- Self- sample HPV collection detected more high risk than HPV clinician-collected.
- DC with EVA™ was able to distinguish between low and high-grade cervical dysplasia.
- DC also allows women with probable HGD to have a LEEP rather than cryotherapy.

# Conclusion (2)

- DC is superior to VIA as images can be used for documentation, quality control, and telemedicine consultation.
- Suggestion:
  - A combination of self-sampling HPV testing and subsequent DC of hr HPV+ women can be an efficient and cost-effective see-and-treat cervical cancer screening strategy.



**Thank you for your attention!**

