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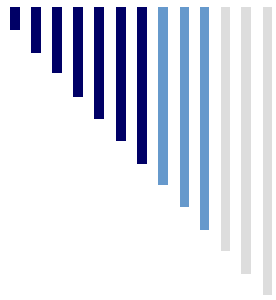


# **PMTCT FAILURE: THE ROLE OF MATERNAL AND FACILITY –RELATED FACTORS**

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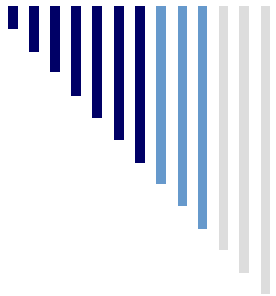
# Background

- ❑ High HIV prevalence among pregnant women (~19.1%)<sup>1</sup>
- ❑ Wide coverage of PMTCT services (~90%)<sup>2</sup>
- ❑ Relatively high rates of mother-to-child transmission of HIV (~16%) despite an existing PMTCT program<sup>2</sup>.

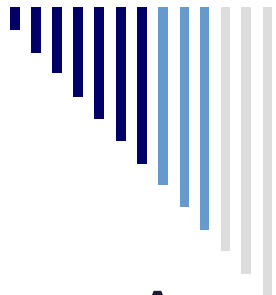


<sup>1</sup>Family AIDS Care and Education Services (FACES) data)

<sup>2</sup> Kenya AIDS Indicator Survey 2012

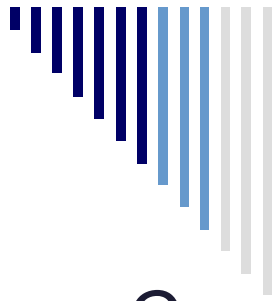


To determine individual, socio-cultural and health system factors that contribute to PMTCT failure in Kenya.



## Methods

- ☐ A matched case-control study
- ☐ Conducted at Ministry of Health facilities in Nyanza Province, Kenya.
- ☐ All facilities supported by Family AIDS Care and Education Services (FACES), a comprehensive PEPHAR Funded HIV prevention, care, and treatment program
- ☐ Participants were enrolled as infant HIV diagnosis became known from November 2012 to June 2013



## Methods

## Cont' d

### ☐ Cases:

- ☐ HIV-infected mothers of infants aged 6 weeks to 6 months with a definitive diagnosis of HIV.

### ☐ Controls:

- ☐ HIV-infected mothers of infants aged 6 weeks to 6 months without HIV.
- ☐ Cases and controls were matched in a 1:3 ratio on socio-demographic characteristics and type of health facility.



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## Methods

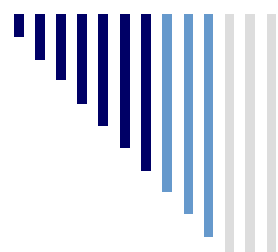
- Participants completed an interviewer-administered questionnaire before knowing HIV diagnosis of infant.
- Supplemental data was abstracted from:
  - Routine ANC & PMTCT registers
  - Mother and Infant forms
- Chart audits collected information on provider guideline compliance
- Matched logistic regression analysis was done to assess factors associated with MTCT reporting Odds Ratios (OR) and 95% Confidence Intervals (CI).



# Results

| Variable                                | Cases                       | Controls                     |
|---|-----------------------------|------------------------------|
| <b>Total Number</b>                     | <b>50</b>                   | <b>150</b>                   |
| <b>Mother's age Mean years (SD)</b>     | <b>26.1 (SD= 5.6)</b>       | <b>26 (SD= 5.1)</b>          |
| <b>Infant's age Mean months (SD)</b>    | <b>3.9 (SD = 1.2)</b>       | <b>3.9 (SD = 1.1)</b>        |
| <b>Maternal CD4 counts Median (IQR)</b> | <b>521 (IQR= 354 - 671)</b> | <b>559 (IQR = 361 - 747)</b> |



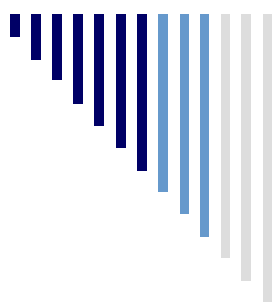


# Maternal Factors

| Variable   | Odds Ratio (OR) | 95% CI      |
|--|-----------------|-------------|
| Diagnosis of HIV during the course of the pregnancy* | 2.85            | 1.40 - 5.77 |
| Non adherence to ART for her own health or for PMTCT | 3.35            | 1.48 - 7.58 |
| Home delivery  | 2.40            | 1.01 - 5.80 |

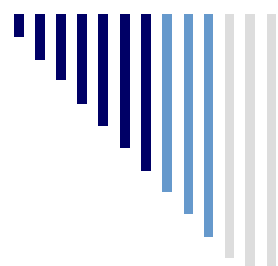
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\*median gestation age at time of first diagnosis was 20 weeks for both cases and controls



# Infant Factors

| Variable  | Odds Ratio (OR) | 95% CI       |
|---|-----------------|--------------|
| Non-adherence to ART for PMTCT                    | 3.92            | 1.13 - 13.58 |
| Not given any ART prophylaxis even when dispensed | 9.71            | 2.74 - 34.37 |



# Facility Related Factors

| Variable   | Odds Ratio (OR) | 95% CI              |
|--|-----------------|---------------------|
| Not receiving HIV education                        | <b>3.57</b>     | <b>1.36 - 9.33</b>  |
| Not receiving HIV counseling                       | <b>3.35</b>     | <b>1.28 - 12.21</b> |
| Not being encouraged to involve their male partner | <b>3.87</b>     | <b>1.25 - 11.99</b> |
| Not receiving disclosure assistance                | <b>5.63</b>     | <b>1.99 - 15.9</b>  |

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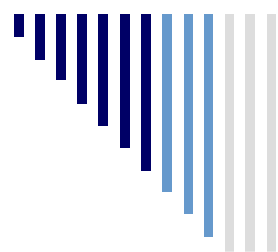


## Facility Related Factors ... cont

| Variable  | Odds Ratio (OR) | 95% CI              |
|---|-----------------|---------------------|
| Not being given ART at first contact in the clinic                    | <b>2.97</b>     | <b>1.38 - 6.31</b>  |
| Provider not following guidelines for prescription of ART for mothers | <b>8.61</b>     | <b>2.83 - 26.15</b> |
| Provider not following guidelines for prescription of ART for infants | <b>9.72</b>     | <b>2.75 - 34.37</b> |

Factors such as accessibility and cost of health facility services were not significantly associated with the outcome.

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# Psychosocial Factors

| Variable  | Odds Ratio (OR) | 95% CI             |
|---|-----------------|--------------------|
|   |                 |                    |
| <b>Mother lacked any social support</b>                 | <b>2.83</b>     | <b>1.12 - 7.15</b> |
| <b>Disclosure of HIV status to close family members</b> | <b>0.36</b>     | <b>0.07 - 1.82</b> |
| <b>Stigma experienced from the community</b>            | <b>0.37</b>     | <b>0.14 - 1.02</b> |
| <b>Stigma experienced from the facility</b>             | <b>0.38</b>     | <b>0.04 - 3.41</b> |
| <b>Intimate partner violence</b>                        | <b>1.23</b>     | <b>0.39 - 3.88</b> |



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## Conclusion

- ☐ PMTCT failure in this set up was associated with several potentially modifiable risk factors
- ☐ Health system factors had a stronger impact than psychosocial factors on MTCT
- ☐ Women who get to know their HIV status for the first time during pregnancy have a high MTCT risk
- ☐ We recommend targeted efforts to improve adherence to PMTCT guidelines by HCW to all eligible mothers BUT more so to women who get to know of their HIV status for the first time during

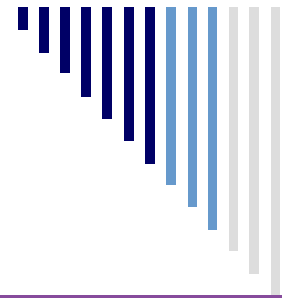
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  - ☐ The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the NIH



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*It always seems impossible  
until it's done.*

- Nelson Mandela

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