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# HIV awareness in young population: Differences between HIV positive young adults infected due to vertical transmission and their HIV-negative peers. NeurocoRISpe and FARO projects



Mutua Madrileña 2012/0077, Gilead Fellowship 2013/0071, FIS PI15/00694. M. Isabel González-Tomé (Principal Investigator-PI); RED RD16/0025/0019, RD16/0025/0024ISCIII/FEDER. Marisa Navarro, M<sup>a</sup> Isabel González-Tomé (PI); FIPSE 3608229/09. José Tomás Ramos Amador



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## Objectives

1. To compare the level of knowledge about HIV acquisition among HIV-negative young adults and HIV-positive group (due to vertical transmission).
2. To compare awareness about effectiveness of protection measures between both groups.
3. To compare and explore the satisfaction regarding the information received from doctors and parents in both groups.

*This study belongs to FARO and NeuroCoRISpe project*



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## Methods

- Descriptive study
- Paired case-control
  - ✓ Education level (High, medium and low)
  - ✓ Gender
  - ✓ Age ( $\pm 3$  years)
- HIV-positive (All vertically infected) subjects were randomly selected from CoRISpe database (Cohort of the Spanish Pediatric HIV Network). HIV-negative subjects were recruited online.
- Subjects were assessed using an anonymous questionnaire adapted from the Spanish Institute of Statistics.



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## Analysis

- Univariate analysis were performed.
  1. Descriptive summary of the results.
  2. Chi Square analysis about drug use and sexual habits were performed on HIV-infection variable.



Sample

<i>Paired by:</i>	Gender		Level of studies		Age ( $\pm 3$ years)
<b>54 subjects</b> <b>27 HIV+ and 27 HIV-</b>	Male	<b>29.6%</b>	Low	<b>18.6%</b>	Median <b>22.5</b>
	Female	<b>70.4%</b>	Medium	<b>51.8%</b>	Sd <b>3.97</b>
			High	<b>29.7%</b>	t Student=0.33, <b>p=0.97</b>

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NeuroCoRISpe-FARO



	Overall	HIV+	HIV-	$\chi^2$
<i>Sexual preference</i>				2.68 (p>0.05)
Heterosexual	88%	95.8%	80.8%	n.s.
Bisexual	12%	4.2%	19.2%	
<i>Ethnic</i>				3.67 (p>0.05)
Sub-saharian	3.9%	4.2%	3.7%	n.s.
East Europe	21.6%	12.5%	29.6%	
South-american	9.8%	12.5%	7.4%	
Maghreb	2%	0%	3.7%	
Caucasian	56.9%	62.5%	51.9%	
Gypsy	5.9%	8.3%	3.7%	
<i>Religion</i>				3.69 (p>0.05)
Catholic	31.5%	37%	25.9%	n.s.
Protestant	1.9%	3.7%	0%	
Own faith	11.1%	14.8%	7.4%	
Agnostic/Atheist	44.4%	33.3%	55.6%	
Do not answer	11.1%	11.1%	11.1%	



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## Results:

	In sexual intercourse	Receiving donated blood	Sharing public toilets	Drink from someone's infected glass	By mosquito bite	Donating blood	Receiving medical assistance in a hospital next to a infected person
<b>Overall</b>	<b>98.1%</b>	<b>84.6%</b>	<b>1.9%</b>	<b>1.9%</b>	<b>13.7%</b>	<b>51.9%</b>	<b>0%</b>
<b>HIV+</b>	<b>96.2%</b>	<b>80.8%</b>	<b>0%</b>	<b>0%</b>	<b>4%</b>	<b>61.5%</b>	<b>0%</b>
<b>HIV-</b>	<b>100%</b>	<b>88.5%</b>	<b>3.8%</b>	<b>3%</b>	<b>23.1%</b>	<b>42.3%</b>	<b>0%</b>
<b><math>\chi^2</math></b>	<b>1.02</b>	<b>0.59</b>	<b>1.02</b>	<b>1.02</b>	<b>3.91*</b> <b>p=0.48</b>	<b>1.92</b>	

Affirmative answers about HIV acquisition.

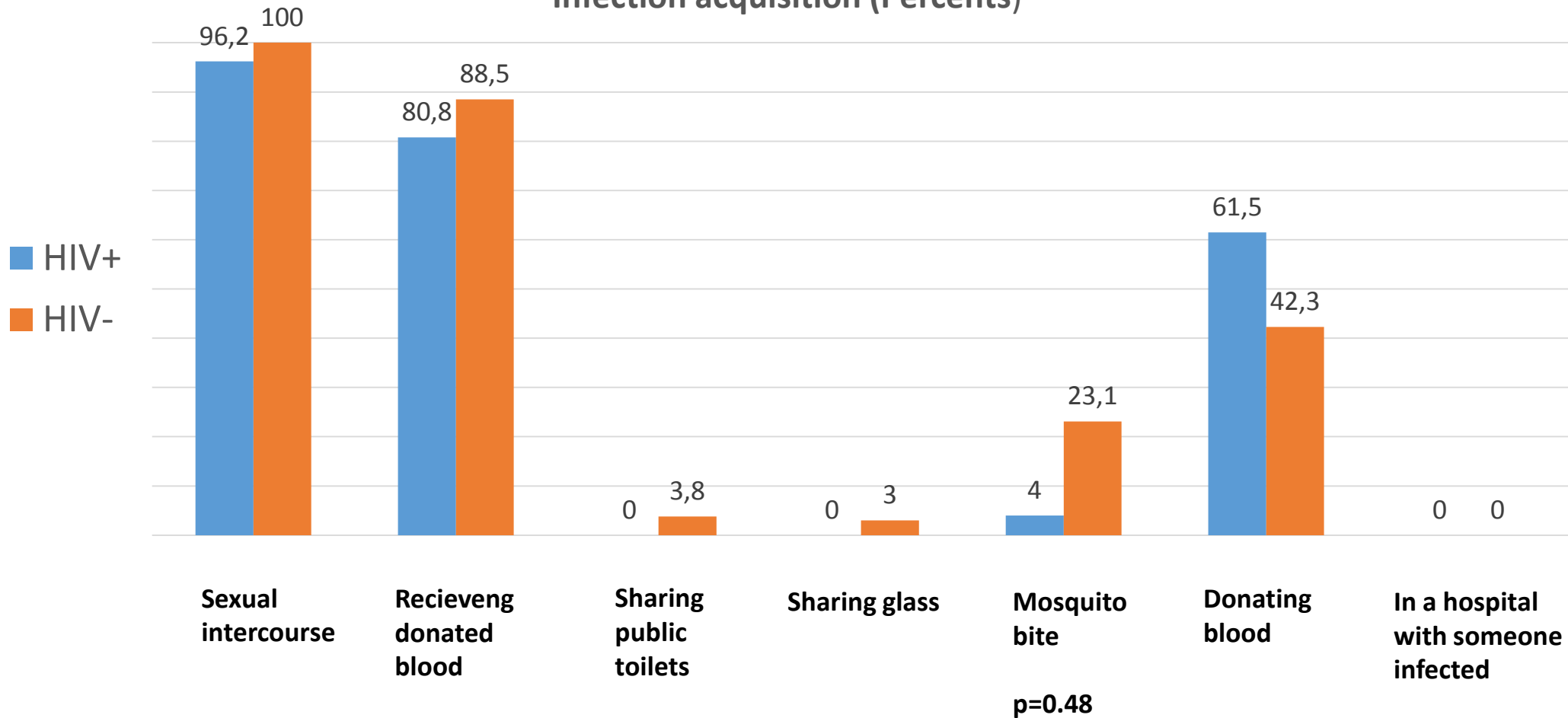
Chi Square (p<0.05)\*; (p<0.01)\*\*

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## Infection acquisition (Percents)





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## NeuroCoRISpe-FARO



	Whasing after sexual intercourse	Chose correct partners	Having few partners	Male condom	Spermicide use	Avoid oral sex	Female condom	Undetectable viral load
<b>Overall</b>								
Very	24.5%	25.5%	9.8%	80.8%	2%	23.5%	51%	41.2%
Enough	11.3%	29.4%	23.5%	13.5%	9.8%	19.6%	13.7%	9.8%
Quite	17%	21.6%	13.7%	1.9%	17.6%	39.2%	9.8%	15.7%
Not	42.8%	21.6%	51%	3.8%	64.7%	15.7%	23.5%	31.4%
Do not answer	0%	2%	2%	0%	5.9%	2%	2%	2%
<b>HIV+</b>								
Very	40.7%	24%	12%	80.8%	4%	24%	60%	80%
Enough	14.8%	32%	16.7%	11.5%	12%	28%	4%	1%
Quite	18.5%	20%	12%	0%	20%	40%	12%	0%
Not	25.9%	20%	56%	7.7%	52%	4%	20%	4%
Do not answer	0%	4%	4%	0%	12%	4%	4%	4%
<b>HIV-</b>								
Very	7.7%	26.9%	7.7%	80.8%	0%	23.1%	42.3%	3.8%
Enough	7.7%	26.9%	30.8%	15.4%	7.7%	11.5%	23.1%	7.7%
Quite	15.4%	23.1%	15.4%	3.8%	15.4%	38.5%	7.7%	30.8%
Not	69.2%	23.1%	46.2%	0%	76.9%	26.9%	26.9%	57.7%
Do not answer	0%	0%	0%	0%	0%	0%	0%	0%
$\chi^2$	<b>11.83**</b> p=0.008	<b>1.30</b>	<b>2.81</b>	<b>3.14</b>	<b>5.77</b>	<b>7.08</b>	<b>5.70</b>	<b>38.6**</b> P=0.00

Answers about effectiveness of protection measures.

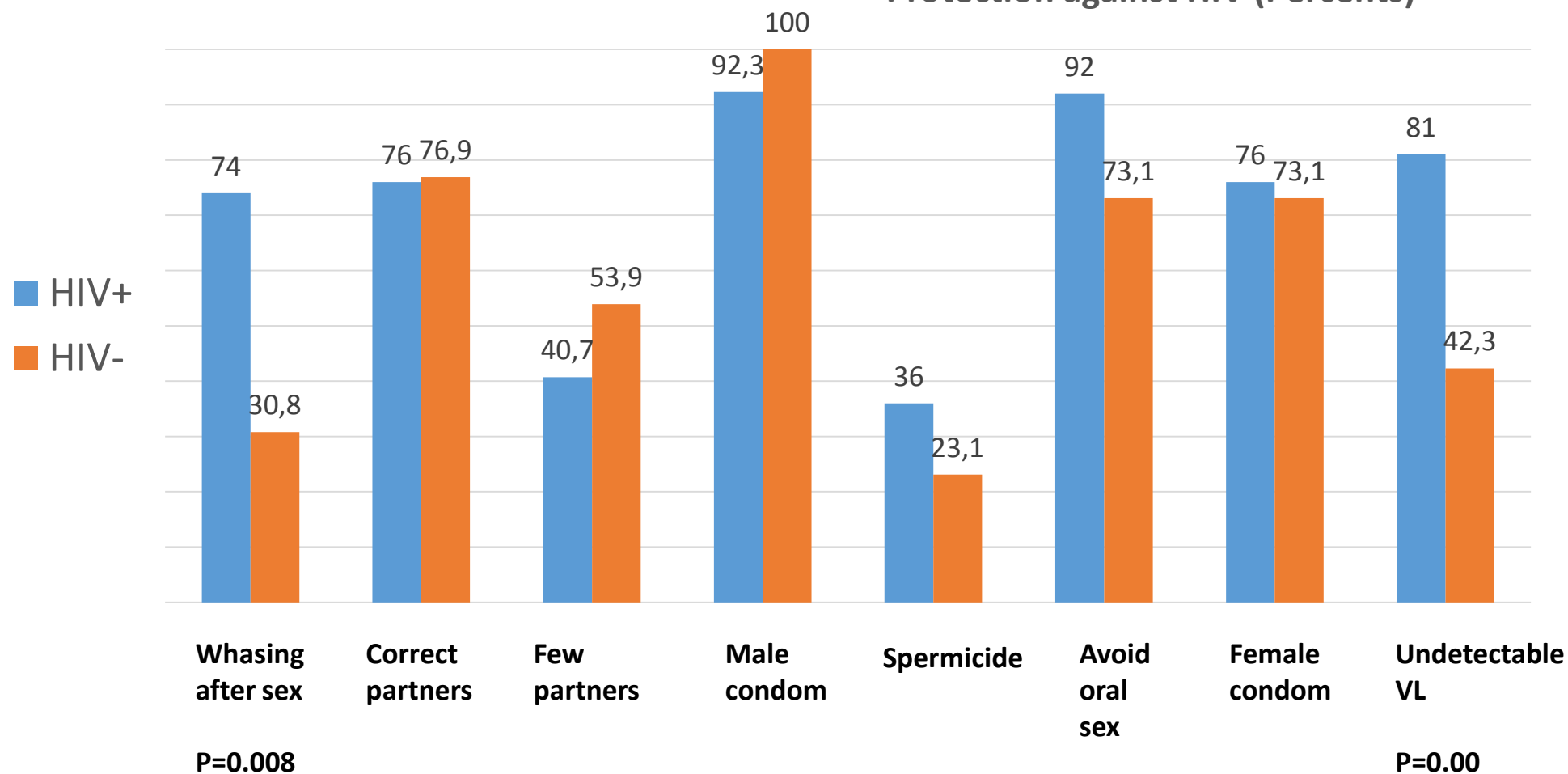
Chi Square (p<0.05)\*; (p<0.01)\*\*

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## Protection against HIV (Percents)

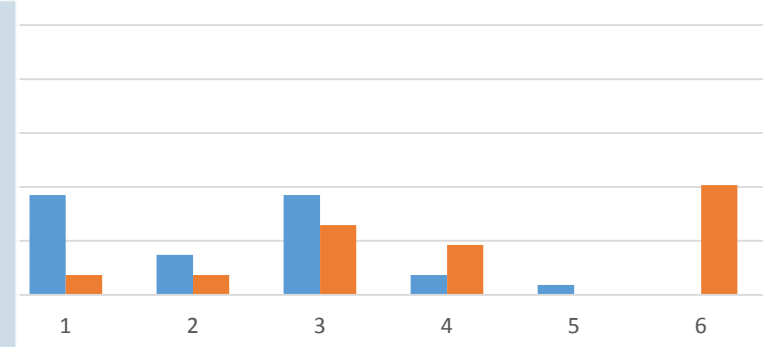
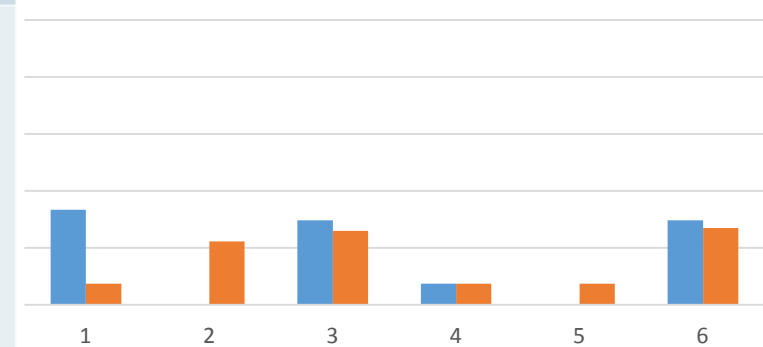
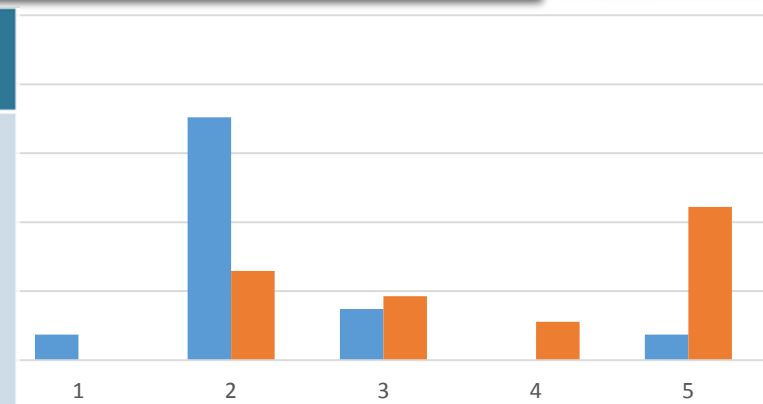


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NeuroCoRISpe-FARO



	Overall	HIV+	HIV-	$\chi^2$
<b>Info. protections measures doctor</b>				<b>17.79 (p=0.01)</b>
Too much	3.7%	7.4%	0%	
Suitable	48.1%	70.4%	25.9%	
Enough	16.7%	14.8%	18.5%	
Not enough	5.6%	0%	11.1%	
Did not get informed	25.9%	7.4%	44.4%	
<b>Sexual intercourse parents</b>				<b>12.52 (p&lt;0.05)</b>
Highly satisfactory	20.4%	33.3%	7.4%	
Rather satisfactory	11.1%	0%	22.2%	
Enough satisfactory	27.8%	29.6%	25.9%	
Little satisfactory	7.4%	7.4%	7.4%	
Unsatisfactory	3.7%	0%	7.4%	
Did not get informed	29.6%	29.6%	26.9%	
<b>Sexual intercourse doctor</b>				<b>19.81 (p=0.01)</b>
Highly satisfactory	22.2%	37%	7.4%	
Rather satisfactory	11.1%	14.8%	7.4%	
Enough satisfactory	31.5%	37%	25.9%	
Little satisfactory	13%	7.4%	18.5%	
Unsatisfactory	1.9%	3.7%	0%	
Did not get informed	20.4%	0%	40.7%	





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## Conclusions

- There are significant differences about awareness of infection and protection measures (Infection by mosquito bite, washing after sexual intercourse and having a undetectable viral load), and information received among both groups in pointed items.
- Apart from significant results, we detected a warning lack of knowledge, and dangerous misleading information both in HIV positive and negative young adults according to issues such as use of condom or risk infection in blood donations.
- We consider that these factors should be included in the everyday healthcare practice with HIV patients and that preventive strategies aimed at young people should be developed.