



Donors with altered donor questionnaires: An unexplored risk?

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Introduction



- Historically, donor questionnaires have been shown to contribute to the safety of a country's blood supply.
- At the South African National Blood Service (SANBS), blood donors are required to complete a donor questionnaire prior to the medical assessment and interview before proceeding to donate any blood products.
- Donors answer questions regarding their demographics, health and lifestyle.
- The Lifestyle questions ask about any skin penetrating wounds, for example needle stick injuries and piercings, or markings such as tattoos and scarification.
- In addition, there are questions relating to the donors' and their partners' sexual lifestyle and history.
- In some instances, donors may answer affirmative to a question but under direct questioning change their response. The extent to which such changes are associated with potential risk was not clear.



The Donor Questionnaire



SECTION 3: LIFESTYLE QUESTIONNAIRE

All donors must complete this section. Your answers will be treated confidentially.

Please read all questions carefully and answer honestly

Please **TICK** your answers

Staff Comments

		YES	NO	
1.	In the past 6 months:			
	1.1 Have you had a tattoo, body or ear piercing, or permanent make-up applied?	YES	NO	
	1.2 Have you had Raatib, ritual scarring, ritual piercing, ritual circumcision, blood sharing or been stabbed?	YES	NO	
2.	In the past 6 months: Have you or your sexual partner had a needle stick or skin penetrating injury; or had skin, eye or mouth contact with another person's blood?	YES	NO	
3.	In the past 6 months: Have you taken anti-retroviral medication?	YES	NO	

Please Note: The following questions are of a sexual nature. This includes oral, vaginal and anal sex. We ask these questions as sexual contact may result in infectious diseases such as HIV entering the bloodstream and so be transmitted to patients through your blood being transfused to them.

Please read all questions carefully and answer honestly

Please **TICK** your answers

Staff Comments

		YES	NO	
4.	4.1 Do you have AIDS or are you HIV positive?	YES	NO	
	4.2 Have you ever had sexual contact with anyone who has AIDS or is HIV positive?	YES	NO	
5.	In the past 6 months (with or without a condom):			
	5.1 Have you started having sexual contact with a new sexual partner?	YES	NO	
	5.2 Have you had sexual contact with more than one person?	YES	NO	
	5.3 To the best of your knowledge, has your sexual partner had sexual contact with other partners?	YES	NO	
	5.4 Have you had sexual contact with someone whose sexual history you do not know?	YES	NO	
	5.5 Have you had sexual contact with anyone who takes money, drugs or other favours for sex?	YES	NO	
	5.6 Have you received money, drugs or other payment for sex?	YES	NO	
	5.7 Have you been sexually assaulted?	YES	NO	
6.	In the past 6 months: Have you or your sexual partner had any sexually transmitted disease (STD) including genital herpes, syphilis or gonorrhoea (drop)?	YES	NO	
7.	Have you or your sexual partner ever used recreational, street drugs by nose, mouth or injection needle?	YES	NO	
8.	Do you consider your blood safe to be transfused to a patient?	YES	NO	

SECTION 4: DECLARATION

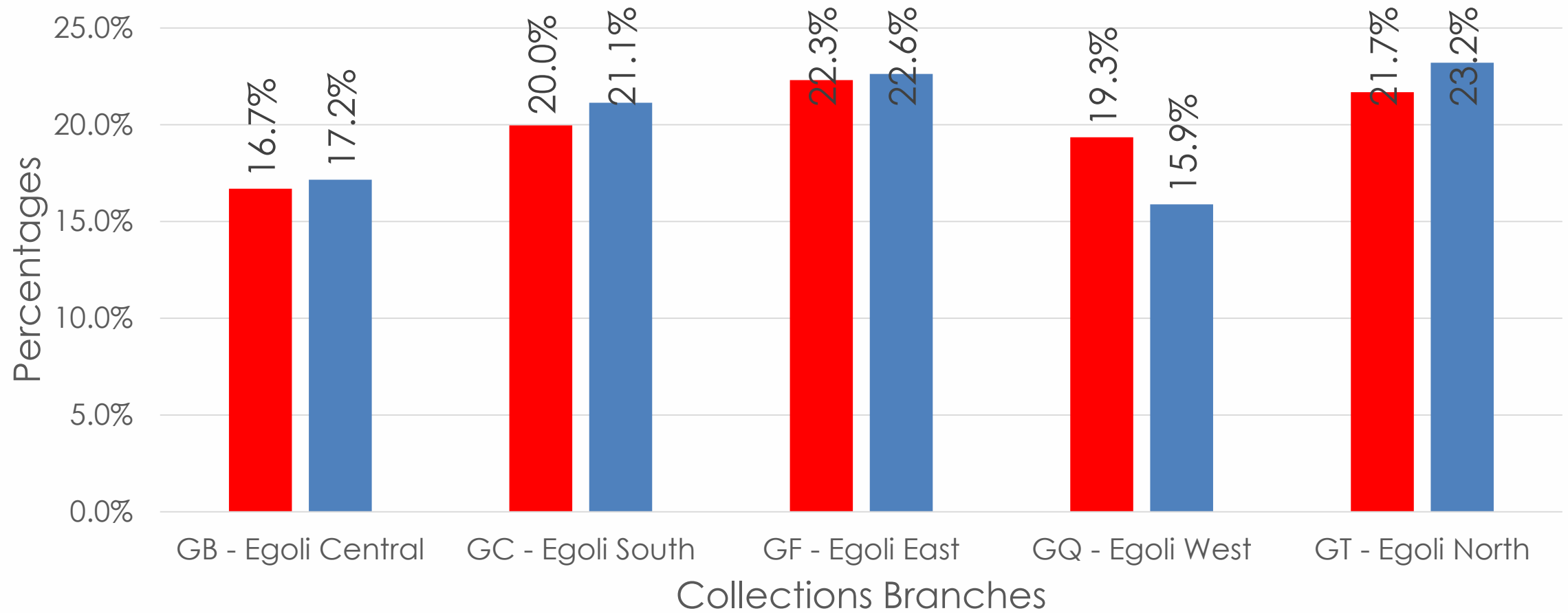
Methods



- For this retrospective study, an inspection of 47 309 donor questionnaires took place during the months of October to December 2017 to identify forms where changes to Lifestyle questions were made.
- The donor forms which were from Egoli Zone, were separated into the five Collections Branches, namely Egoli Central, Egoli South, Egoli East, Egoli West and Egoli North.
- The use of retrospective collections and HIV Positive count data obtained from the Business Intelligence (BI) system made this study possible.



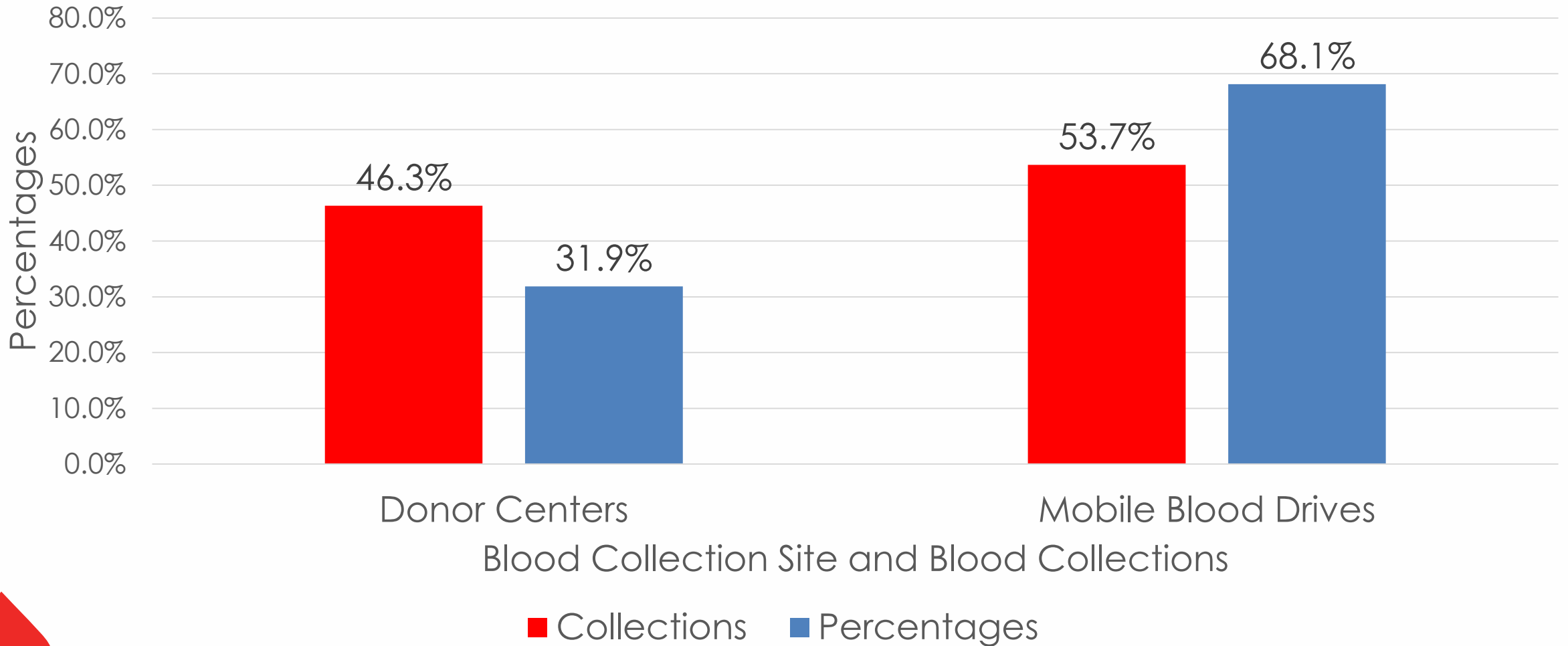
Results – Collections Branch Distribution



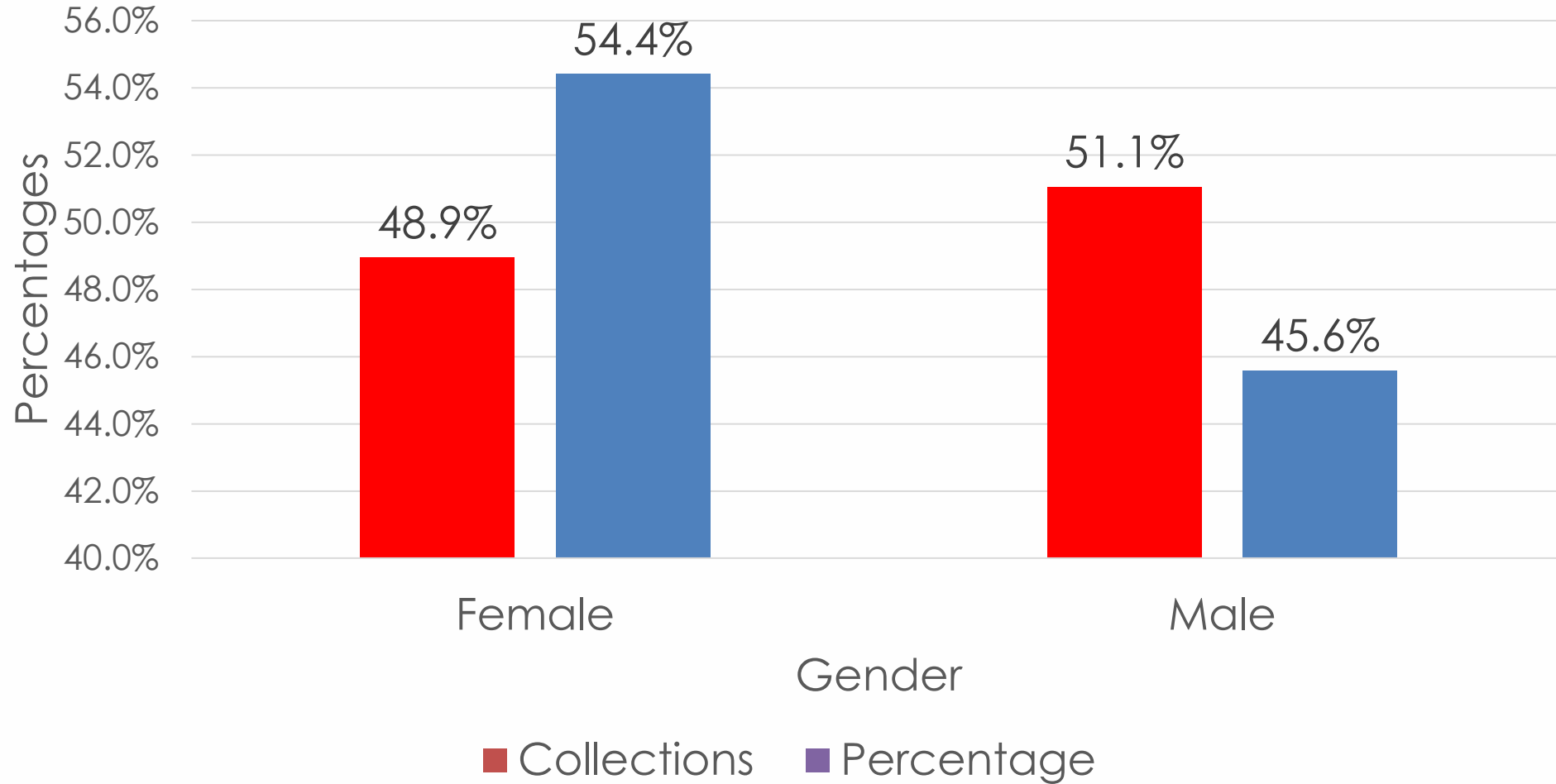
■ Collections ■ Percentages



Results – Blood Collection Site Distribution



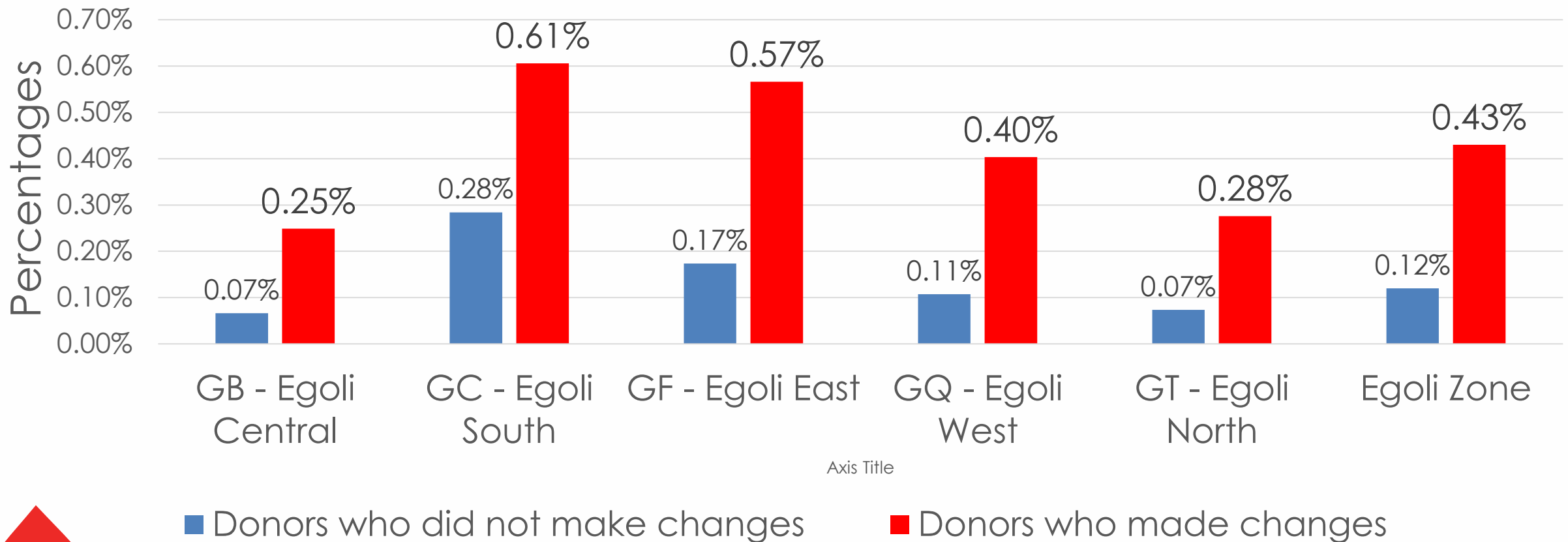
Results – Gender Distribution



Results – Collections Branches

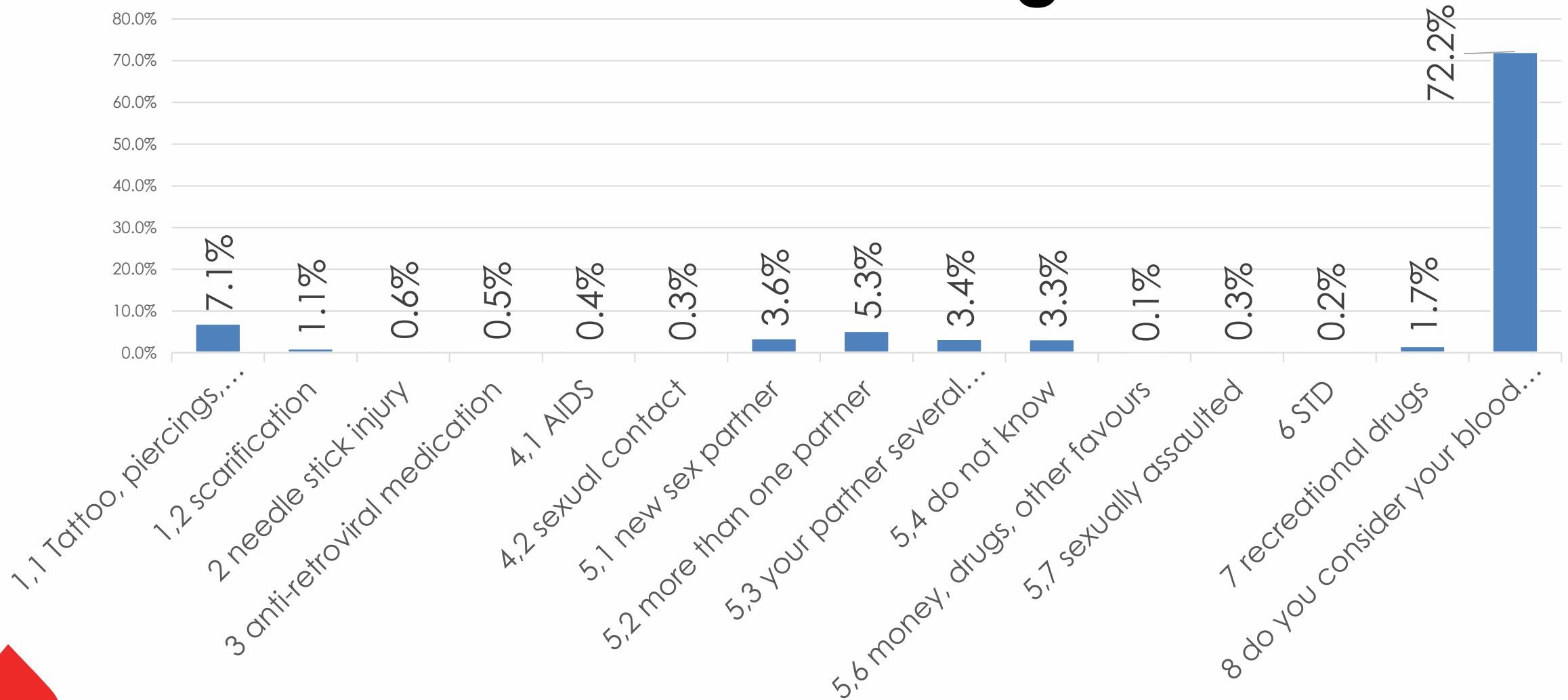


Donors who made changes vs. Donors who did not make changes at Branch Level



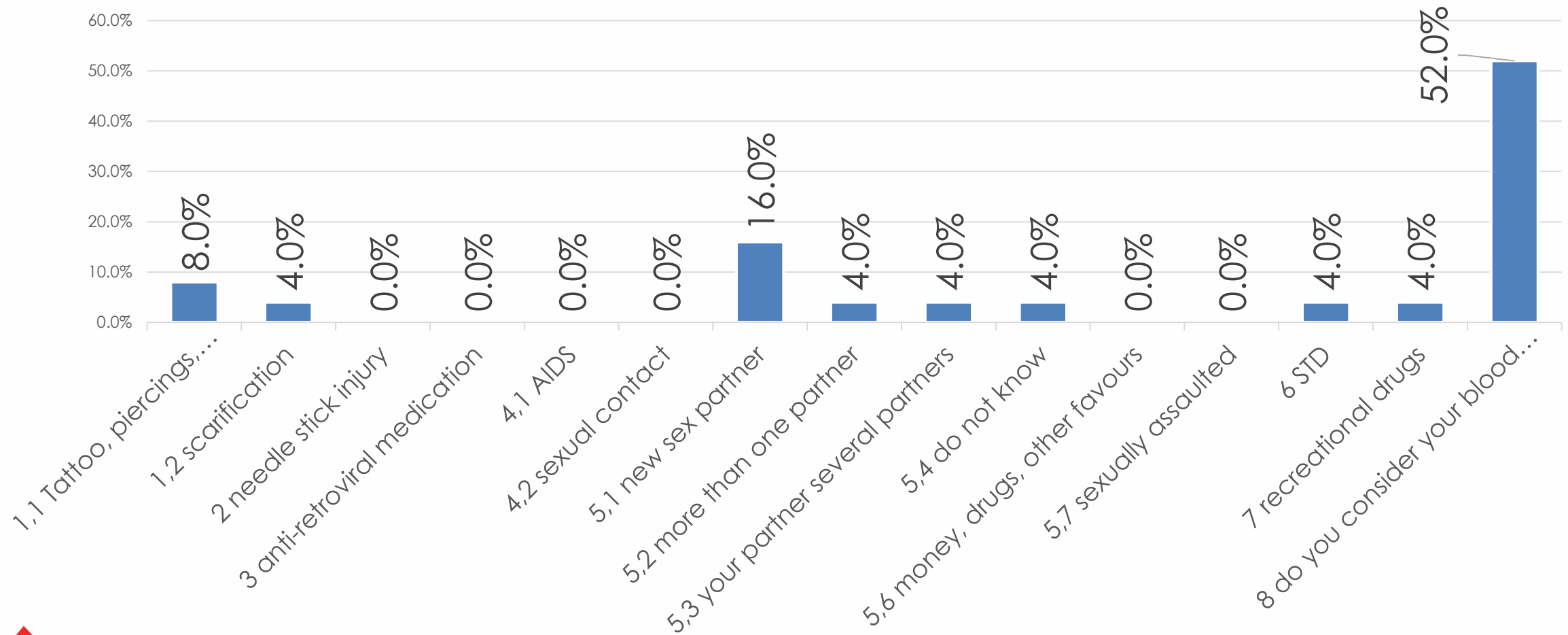
Results:

Distribution of Question changes



Results:

Distribution of Donors who tested HIV positive



Results – Egoli Zone



Donors	Donor forms	HIV Positive Count	%
Donors who made changes	4 697	20	0,43%
Donors who did not make changes	42 612	53	0,12%
Totals	47 309	73	0,15%

The unadjusted odds of testing HIV positive when making changes to the lifestyle questions of the donor form was 3.4 (95% CI 2.05 – 5.75) times higher than donors who did not make any changes.



Discussion



- The distribution of donors who made changes to their donor form between Collections Branches was not significant except for Egoli West who had the least number of changes compared to blood collections.
- The 20 donors who made changes to their donor forms and tested HIV positive were all from the Mobile Blood Drive.
- The differences in the blood collections sites could be attributed to the mobile blood drives being a great deal busier with shorter times to collecting blood and thus the staff could be under more pressure to work quicker resulting less time to interview the donors more intensely.
- The differences in gender would need to be investigated to discover why more females change their answers than the males.



Conclusion



- It has been shown that the question “Do you consider your blood to be safe” was the question that had the most changes (72,2%) and also resulted in the most donors testing HIV positive (50,0%) – this indicates that more investigation is needed and more donor education to the importance of being honest in their answers.
- It was also confirmed that donors who made changes to their donor forms during the interview process before being accepted to donate blood had a 3.4 times greater odds of testing HIV positive than those donors who did not make any changes.
- The differences in the geographic distributions may indicate confounding and further analysis should be considered.
- Despite potential confounding, donor staff who question donors about their answers should take care to ensure donors are provided a safe space within which to answer honestly when questioned further.



Thank You



- I would like to thank:
 - Amanda van der Bergh and Antoinette Heine for searching through the donor forms and capturing the information for me
 - Marion Vermeulen and Dr. Karin van der Berg for their assistance in the statistical analysis



Thank you