Critique of Three Tobacco Control Documents
Using the BIAS FREE Framework
to Identify Gender Biases and
Solutions to Identified Biases

Submitted to IDRC, RITC Program Team

by *BIAS FREE Co-operative,* Inc.

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Table of Contents

Section A:

1) Background

2) Introduction

3) The *BIAS FREE* Framework

4) Context

Section B:

5) **Critique of a literature review**: "Section B" of Research Proposal for "Knowledge, Attitudes and Practices Regarding Smoking and Cessation Advice: a survey of physicians who treat HIV/AIDS patients in Buenos Aires (Argentina)"

6) **Critique of a survey questionnaire**: "Annex B: Gender-based analysis of young adult's tobacco use and perceptions of tobacco control policies in Bosnia and Herzegovina"

7) **Critique of a Call for Proposals**: "Call for Proposals: tobacco and Gender: Facilitating gender-sensitive research for tobacco control policy Development in Brazil"

Section C:

8) Summary

9) Recommendations

Section A:

1) Background:

As a follow-up to a 5-day introductory training workshop on the *BIAS FREE* Framework for fifty IDRC RITC-sponsored tobacco control researchers, IDRC contracted with *BIAS FREE Co-operative,* Inc. to work with researchers in three countries to apply the *BIAS FREE* Framework to their on-going research.

For the purposes of the follow-up activities, *BIAS FREE,* Inc. was contracted to:
1. Provide a written critique of 3 documents from different stages of on-going research in the identified countries;
2. Work with the three research teams to revise their documents as needed to remove any identified biases; and
3. Write up the "before" and "after" versions of the documents and the process of working with the three research teams as *Case Studies* that could serve as models for applications of the *BIAS FREE* Framework for other RITC-sponsored research, and other researchers more broadly.

We very much appreciate the opportunity to work with IDRC and their RITC-sponsored researchers, and look forward to the next stages of this project. We particularly appreciate the willingness of the research teams of the 3 projects we have critiqued to work with us to overcome any identified problems.

2) Introduction

The following is a written critique of 3 documents provided to *BIAS FREE,* Inc. by RITC staff at IDRC. The documents were selected from among many of the RITC-funded tobacco control projects in 50 countries. The three selected documents were considered by RITC staff and *BIAS FREE* Inc. to be good documents for capacity building among the research teams involved and to serve as examples of how to apply the *BIAS FREE* Framework at various stages of research. All three research teams had volunteered their projects to be part of the exercise and to interact with *BIAS FREE,* Inc. to revise their documents and assist with the development of the case studies.

The three documents under review are:

1. A literature review:
   "Section B" of Research Proposal for "Knowledge, Attitudes and Practices Regarding Smoking and Cessation Advice: a survey of physicians who treat HIV/AIDS patients in Buenos Aires (Argentina)."
   PI: Jonatan Konfino, Buenos Aires, Argentina

2. A survey questionnaire:
   "Annex B: Gender-based analysis of young adults tobacco use and perceptions of tobacco control policies in Bosnia and Herzegovina.
   PI: Stela Stojisarljevié, Bosnia-Herzegovina

3. A Call for Proposals:
"Call for Proposals: tobacco and Gender: Facilitating gender-sensitive research for tobacco control policy Development in Brazil"
   PI: Marina Kassab

The critique of the three documents was carried out by *BIAS FREE*, Inc. using the **BIAS FREE Framework**[1] to conduct a critical analysis, with a particular focus on identifying and removing *gender* bias.

3) The *BIAS FREE* Framework

The *BIAS FREE* Framework is an innovative tool that can be applied to organizations, research, policy, programmes, services and practices to identify biases that serve to maintain oppressive social hierarchies and to find solutions to overcoming such biases. **BIAS FREE** is an acronym for: **B**uilding an **I**ntegrated **A**nalytical **S**ystem **F**or **R**ecognising and **E**liminating in**E**quities.

Unlike other existing tools for conducting gender analysis, the *BIAS FREE* Framework addresses three overarching problems identified in the Framework as: "**H**" problems – a set of 7 biases that result in "***Maintaining an existing hierarchy***"; "**F**" problems – a set of 4 biases that result from "***Failing to examine differences***" as socially relevant, and that are a means of perpetuating oppressive social hierarchies, and "**D**" problems – a set of 8 biases that result from "**Using double standards**" to maintain oppressive social hierarchies.

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[1] Burke, M.A. and Eichler, M. *The BIAS FREE Framework: A practical tool for identifying and eliminating social biases in health research*. The Global Forum for Health Research: Geneva, Switzerland. 2006.

The *BIAS FREE* Framework also provides a single tool for looking at all oppressive social hierarchies and how they interact and compound each other. Thus, the Framework addresses not just the sex/gender hierarchy, but the other "isms" that work with sexism (ableism, racism, ageism, classism, casteism, etc.) to cause immense harm to individuals and groups of people.

4) Context

Our research has no found no other took that is as comprehensive and rigorous as the *BIAS FREE* Framework in conducting critical gender analysis. Most other analytical tools focus primarily on what the Framework identifies as the "F" problems, "Failing to examine differences", rarely address the "D" problems, "Using double standards", and most often fail to identify and/or problematize the "H" problems, "Maintaining an existing hierarchy", in a meaningful way.

In fact, as is evident in the work *BIAS FREE*, Inc. has carried out to date with IDRC-RITC, and with other organizations, there is no real consensus on the language around gender analysis and on what the concept means. Vague terms such as: "taking gender into account", "conducting gender-sensitive research", "assessing for gender differences" and "addressing gender issues" are used interchangeably with "gender-based analysis", without a real understanding of what they mean and what is expected when asked to conduct a gender analysis. This is not an isolated problem, but a pervasive reality throughout all spheres within the research-policy-practice continuum around the globe, in high- to low-income countries alike.

All three documents exhibit the H, F and D problems identified in the *BIAS FREE* Framework. The identified problems are also consistent with what we have found in critiquing other works.

So, it is within this context that *BIAS FREE,* Inc. undertakes to provide a critique of the three RITC-sponsored research documents.

By going through this exercise, we aim to build capacity among the 3 research teams with whom we will be working to revise the documents that have been critiqued, and among the IDRC-RITC staff members who are sponsoring this project. We also aim for the case studies to raise awareness of the usefulness of the *BIAS FREE* Framework in producing a rigorous critical analysis, and in identifying solutions to biases that compromise research, and the policy and programmes that flow from it. Finally, we aim to demonstrate the usefulness of

the *BIAS FREE* framework in clearing up vague terminology and in providing a common set of concepts and methodology as a global standard for conducting critical gender analysis, and critical analysis of oppressive social hierarchies more broadly.

With this in mind, Section B of this document critiques each of the three RITC-sponsored research documents as "stand alone" sections. While they have been integrated into one document, they were written so that each of the three research teams would have an independent critique of their work. The summary section at the end of this document attempts to draw together issues that were consistent across all three critiques, for the benefit of the RITC team and other researchers who may draw on this document.

Section B:

5) Critique of a literature review: "Section B" of Research Proposal for "Knowledge, Attitudes and Practices Regarding Smoking and Cessation Advice: a survey of physicians who treat HIV/AIDS patients in Buenos Aires (Argentina)"

a) Introduction:

This is a critique of the literature review, "Section B" of the "Knowledge, Attitudes and Practices Regarding Smoking and Cessation Advice: A Survey of Physicians who treat HIV/AIDS patients in Buenos Aires" project, using the *BIAS FREE* Framework.

b) Steps to take before starting the actual review of the literature:

Obviously, any literature review is informed by the research question(s) and overall purpose and objectives of the study. In this case, the overall purpose was "To involve HIV health care providers in tobacco control among HIV infected people" – presumably to encourage patients to stop smoking. The study had the following objectives:

- Assess frequency of tobacco cessation counselling provided by practitioners as self reference.
- Assess and characterize smoking cessation efforts provided by physicians to their HIV-positive patients.
- Assess physicians' smoking status and attitudes regarding second hand smoking.
- Assess physicians' knowledge about the interactive health effects of cigarette smoking and HIV/AIDS.

Steps one and two: Identify the relevant hierarchy(ies) and dominant and non-dominant groups

While formulating the research questions that drive the literature review, it is important to identify the operating hierarchy, Step 1 in any application of the *BIAS FREE* Framework, and who the dominant group is within the operating hierarchy(ies), Step 2 in applying the Framework. Within a hierarchy of health literatures, the bio-medical model is the operating hierarchy. The dominant group

would be health care providers, and the non-dominant group would be health care recipients. This often results in health being looked at only as a medical issue, from the perspective of health care providers. Within the health care system and society more broadly, the gender hierarchy is also at work, with men typically in the dominant group and women, the non-dominant.

Step Three: Apply the 19 questions of the *BIAS FREE* Framework

The next step in formulating the research purpose, objectives and questions would be to apply all 19 questions of the *BIAS FREE* Framework, with particular attention to **H3** problems, "Dominant perspective", to avoid the perspective or standpoint of the dominant group. To solve these **H3** problems, we would propose that the research ask about causal factors for smoking uptake as well as smoking cessation among patients – that is, it would ask not only what the effect of smoking is on the health of HIV patients but also whether HIV/AIDS may be a factor in smoking uptake. Further, to properly "assess and characterize smoking cessation efforts provided by physicians to their HIV-positive patients" would require attention to the effectiveness of such interventions, both in terms of objective measures as well as in terms of the effects on patients as experienced by them.

In other words, to avoid **H3** problems "Dominant perspective" when identifying the literature to be searched, the search terms to be utilized, and experts to be consulted to identify further literature, researchers would: 1) make an effort to go beyond the bio-medical literature; and 2) search for literature that deals with the experience of care recipients with the care provided/the health care system.

Of course, the result may be that such literature does not exist, or is very limited. In this case, an important gap would have been identified that the new research could then address.

Once the sources and search terms are defined, the next step is to conduct a systematic overview of the literature. The researchers would again conduct a systematic application of the *BIAS FREE* Framework to this next stage of the research process, by identifying: 1) the various hierarchies named within the literature; 2) who the dominant and non-dominant groups are; 3) whether any of the H1-D8 problems of the Framework are identified in the literature; and 4) whether the literature creates any of the 19 bias problems.

To do this, we would suggest that the reviewer should construct an analytical grid that would be applied to each piece, and that would allow for a characterization

of the literature as a whole. This grid would consist of the 19 questions of the *BIAS FREE* framework, and the relevant hierarchies. The hierarchies would be different in each case, but we would always assume that sex/gender, race/ethnicity and disability are relevant, unless empirically demonstrated not to be relevant. In the case of smoking and HIV/AIDS, age, social class or socio-economic status are likely to be equally important.

Once the grid is ready, and the hierarchies identified, the researchers would ask: Does the body of literature exhibit any of the 19 biases identified in the *BIAS FREE* framework? If so, what are they? Does the literature deal properly with sex/gender and the other hierarchies? What are the gaps? What is missing altogether? What knowledges/ sources of knowledge do we miss because of the identified biases?

Once gaps and missing pieces have been identified within the literature, a second search can be conducted to ensure that no existing literature has been overlooked.

c) Conducting a critical analysis of the documents covered in the literature review:

The next step would be to apply the *BIAS FREE* Framework to each of the documents reviewed, in this case to each of the documents listed in the references. For each document, the researcher would start off by asking: 1) which hierarchies are at work, 2) what are the dominant and non-dominant groups and then read it through and 3) identity if any of the 19 problems of the *BIAS FREE* Framework are found in the document. This would result in a more critical analysis of the literature, which again would be helpful in addressing the knowledge gaps and persistent/consistent problems in the literature.

If this had been done when conducting the literature review under critique, the problems we identify in the next section could have been avoided.

d) The treatment of sex/gender in this literature review:

In this particular literature review, we are alerted to the fact that "In Argentina, the adult smoking prevalence rate is about 34.4% (men 38% and women 27.7%)… one of the highest in Latin America."

It has thereby been established that for this particular research, the sex/gender hierarchy IS highly relevant.

However, after having established this fact, sex/gender largely drops out of the review, an **F1** problem, "Insensitivity to difference". We learn that "Tobacco consumption is also high among youth; 19% of adolescents smoke regularly" and that "Tobacco use kills about 40,000 people per year in this country", but we do not know how these smokers and the deaths are distributed among the sexes. Nor can we tell whether this is the fault of the original research or of the reviewer of the research. If sex/gender had been properly taken into account, we would either know the sex ratio in both cases, or we would have been told that the original researchers failed to inform us of the distribution by sex.

And so it continues, not just with respect to the prevalence of smoking among the sexes but also with respect to the prevalence of HIV. We do learn that among new cases of HIV in Buenos Aires, 61.8% were men, and we know that of these 79% were assisted in public hospitals – but we do not know whether the proportion of women and men in public hospitals (and therefore presumably the distribution of new cases of HIV by socioeconomic status) was proportionate to the overall distribution of HIV across the sexes (both an **F1**, "Insensitivity to difference" and an **F4** "Assumed homogeneity" problem). We do not know whether the incidence of cardiovascular disease and other health problems are the same or different across the sexes, or whether the incidence of smoking among male and female HIV patients (overall 80%) was the same. Our assumption is that in all instances it was likely that sex differences would have been found, had they been looked for, given the physiological differences between the sexes and the differential smoking rates. The solution to these problems is to identify the gaps in the literature, or to report the differences and similarities by sex, if the data are available.

The authors are aware that it is important to look at gaps. For instance, they note appropriately: "In Argentina, there is a paucity of available data about smoking prevalence among HIV positive patients. This literature review found only one study that addressed the topic." They also note: "This literature review did not find any studies exploring smoking cessation counselling practices by HIV medical providers in Argentina or Latin America." They are therefore aware of the hierarchy by country and region, with respect to the prevalence of health studies (an **H1**, problem "Denying hierarchy", avoided) and alert us to the paucity of data (an **F1** problem, "Insensitivity to differences", avoided).

Given that the intent of the study is to "involve HIV health care providers in tobacco control among HIV infected people", with the ultimate intent clearly being to improve the health of HIV infected patients, it would be very important to know whether there is a sex difference among the 7.9% of current smokers who asked for assistance on smoking cessation and whether there is a sex difference among the 45.9% who were dissatisfied with the assistance they received. It is entirely possible that more women than men (or more men than women) asked for assistance, and that the assistance rendered was more successful with one sex than the other.

Overall, it is not clear whether the general neglect of looking at sex/gender is a problem within the original literature reviewed or whether this problem is introduced in the review itself. We suspect that it is a combination of both.

e) Other hierarchies that might be of importance:

Just as sex/gender has been largely ignored in the review, so has been socio-economic status (SES), and age, race/ethnicity, and disability beyond HIV/AIDS status. It is possible that none or almost none of the reviewed literature dealt with these issues, in which case we should have been alerted to this fact; but, at least one of the studies reviewed implicitly dealt with SES, and at least one did the same for age. It would be important to know whether these variables were ignored in the rest of the studies, and if not, what results were found, and whether there were sex/gender differences depending on age, disability, urban/rural background, socio-economic status, etc. Failure to include these variables in the review and analysis is an **F4** problem "Assumed homogeneity". The solution would be to identify the gap in the literature, or to report the differences and similarities in the analysis.

The overall gender insensitivity of the literature review limits the analysis that is possible. The predominant problems identified were **F** problems, "Failing to examine difference", and in particular **F1**, "Insensitivity to difference" and **F4**, "Assumed homogeneity". While many other H, F and D problems may in fact be found in the literature, the analysis in the review precluded us from identifying these.

f) Other consequences of ignoring sex/gender in the literature review:

Failing to consider sex/gender (**F1** – "Insensitivity to difference") in the literature review led to many missed chances to explore the effect of gender with respect to smoking cessation. Given the differential smoking rates of women and men, as well as the differential rates of HIV infection, and given our knowledge that with respect to other health issues there are significant differences between women and men, it would have been very important to explore gender differences. The lack of sensitivity to sex/gender in the literature review carried over into the research questionnaire that followed as part of the overall research project.

The research questionnaire did ask the sex of the respondents, thus making it possible afterwards to conduct an analysis by sex of the respondent. However, it did not look at sex/gender as a possible source of important information. For instance, in the questions under B1 and B2 within the questionnaire, it would have been useful to know whether doctors were informed about sex/gender differences with respect to smoking behaviour, the effect of smoking for the health of patients, or differential reasons/motivations male and female patients may have to start smoking or stop smoking.

When it comes to the treatment provided by doctors, it would have been important to know whether they employ the same or different therapies for male and female patients, a question that could have been easily added in the complex of questions around D18 and D19 (within the *BIAS FREE* Framework this is relevant both for F and D problems). We might furthermore learn what differences by sex doctors observed in success rates, (question D20 on the questionnaire).

Although we would be able to learn about attitudes towards smoking and smoking cessation of doctors by sex, we would not learn anything about sex/gender differences doctors may have observed among their patients, since they were not asked to report on this issue.

Problems of Failing to Examine 'differences (**F1**) that started with the literature review and carried over into the research questionnaire will become particularly important in the analysis, recommendation and dissemination stage of the project. For instance, if it had been found that male and female patients respond better to different cessation techniques, then guidelines could have been developed that alerted physicians to this.

Finally, the proposal states that "Although we were unable to find gender differences in the tobacco cessation counsel provided to patients living with HIV, a separate analysis considering sex of the patient and the provider will be performed to assess for gender differences." Certainly, an analysis of differences by sex of the physician can be provided. However, since no questions have been asked taking gender aspects of the patient into account, we do not see how the report would be able to deliver on the second aspect.

g) Conclusion:

By definition, literature reviews are limited by the literature that is being reviewed. Much health literature fails to systematically deal with sex/gender differences, as well as with the other hierarchies. That is an instance of an **F1** bias problem, "Insensitivity to difference". Further, if only sources of bio-medical knowledge are consulted, much relevant information will be missed (an **H3** bias problem, "Dominant perspective"). Failing to observe the nature of patients' experiences will limit any assessment of the effectiveness of particular interventions (a **D2**, bias problem, "Under-representation or exclusion"). Failing to observe biases in the existing literature systematically and explicitly, means that such biases will be perpetuated throughout the research project and into any policy and programmes that flow from it. By contrast, systematically identifying and critiquing existing biases within the literature means that a research project can start to overcome them. Unfortunately, this particular project does not do this.

6) Critique of a survey questionnaire: "Annex B: Gender-based analysis of young adult's tobacco use and perceptions of tobacco control policies in Bosnia and Herzegovina"

a) Introduction:

This is a critique of the questionnaire of the RITC-funded research project on Tobacco Control in Bosnia Herzegovina using the *BIAS FREE* Framework. While the emphasis is on the questionnaire, RITC provided *BIAS FREE*, Inc. with 4 documents to draw upon in the critique. These include:

- The proposal application
- The questionnaire
- The final technical report and a
- Factsheet

The other three documents help to put the questionnaire into context, and we therefore drew upon them as needed.

b) Principal aims of the research:

The proposal identified the principal aims of the research as follows:

1. Describe university students' smoking behaviours, perceptions of smoking, and tobacco-related knowledge
2. Describe university students' perceptions of and compliance with existing and potential tobacco control policies (including their understanding of FCTC principles)
3. With particular attention to the issue of rapidly-increasing tobacco use among more educated, younger adult women (Bozicevic et al., 2004; Pilav et al., 2006), describe gender differences in smoking behaviours, perceptions of smoking, tobacco-related knowledge, perceptions of and compliance with existing tobacco control policies, and perceptions of potential policies
4. Use the data as an empirical rationale for developing and implementing tobacco control polices specific to the youth/young adult population
5. Effectively disseminate results to all stakeholders – including government officials, health professionals, educators, smokers, and citizens – to draw

attention to the tobacco epidemic and generate support for the introduction and enhancement of tobacco control policies

6. Persuasively share results with the key government officials as a means of advocating for ratification of the FCTC

For the purposes of this critique, we will pay particular attention to aim #3 of the research, which has gender differences as its focus.

c) How to apply the *BIAS FREE* Framework in analyzing a questionnaire:

Steps One and Two: Identify the relevant hierarchies and dominant and non-dominant groups

The first step in analyzing a document such as a research questionnaire is always to identify the relevant hierarchies, avoiding the **H1** problem "Denying Hierarchy". The three default assumptions are that sex/gender, race/ethnicity and disability are relevant in research unless empirically proven that this is not the case. In addition, in most research, other hierarchies are likely to be relevant. As far as smoking behaviour is concerned, we would include, in addition, urban-rural background, migrant status, and SES. Given the difficult history of Bosnia Herzegovina and the close association between trauma and smoking, it might also be relevant to explore whether there are differences in smoking behaviour among female and male students who were particularly affected by the trauma of the war/ethnic conflict. Failure to identify which hierarchies are at work within the context of a given research project can lead to all three major problems identified by the *BIAS FREE* Framework: The H problems, "Maintaining an existing hierarchy", the F problems "Failing to examine differences" and the D Problems, "Using double standards". Once each relevant hierarchy has been identified, the next step is to identify who are the dominant and non-dominant groups within each hierarchy and the given context.

Step Three: Apply the 19 bias questions

The third step is to apply the 19 questions of the *BIAS FREE* Framework that identify whether any of the 19 bias problems (H1 to D8) are at work in any of the questions as stated.

Step Four: Improve the questionnaire through application of the
***BIAS FREE* Framework**

Once any biases have been identified, the fourth step is to remove the problems by either reformulating the questions, and/or dropping (a) question(s) altogether, and/or adding new questions - as necessary for investigating the effects of each relevant hierarchy on the issue(s) being researched.

When undertaking the third step in application of the *BIAS FREE* Framework during our analysis of the questionnaire, we identified a number of problems. As we would encourage in any application of the Framework, we identified instances where the research team solved as well as created bias problems. For example the questionnaire asks for the sex of the participants, and thus allows for a breakdown of the responses by sex, which can be consistently carried through in the analysis. This is an instance of the avoidance of an **F1** problem, "Insensitivity to difference" on the part of the research team. Collecting data by sex of respondents offers the potential for obtaining a global picture of sex differences and similarities with respect to tobacco use among students. However, this attention to sex is not carried through in the response options of some of the questions. An **F1** problem, "Insensitivity to difference", is therefore introduced at this point.

For example, questions 4, 5, 9 and 31 in the questionnaire failed to differentiate response options by sex. The questions do not take into account that peers, friends, family members, relatives and experts all are of different sexes, and that there may be quite different behaviours exhibited by respondents depending upon their sex. Formulating the questions in a way that is insensitive to such differences **(F1** problem, "Insensitivity to difference") precludes an examination of gender differences in the analysis of results.

To address these problems, we propose the following reformulation of response options:

> **d) *Reformulation of some of the questions:***

4. With whom did you smoke for the first time?

A. alone
B. with (a) male peer(s)

C. with (a) female peer(s)
D. with mixed sex group of peers
E. with a girlfriend
F. with a boyfriend
G. with a member of my family (please specify who: e.g. father, aunt, brother, sister, etc.)

5. Who offered you the first cigarette?

A. no one
B. (a) male peer(s)
C. (a) female peer(s)
D. a girlfriend
E. a boyfriend
F. a member of my family (please specify who: e.g. father, aunt, brother, sister, etc.)

31. To quit smoking, it is necessary to have
   (Please choose up to two answers)

A. own decision
B. help from family (please specify from whom)
C. help from a female friend
D. help from a male friend
D. assistance from professionals
E. procurement treatment (we suspect there is a translation problem here)

Question 9 is redundant and can be dropped, since it is the same as question 5.

Formulating the response options as suggested above solves the identified **F1** problems, "Insensitivity to difference". It would allow us to see whether or not there are any gender differences in the manner in which young people are initiated into smoking. For instance, are girls mostly initiated by other girls or by boys? Are boys primarily initiated by boys or by girls? If we knew this, messages could be crafted that were applicable particularly to potential first-time smokers. Further, which family members offer the first cigarette to a boy and a girl? Note that by leaving the options for family members open, we are also introducing implicitly an age criterion – the answers could be coded by sex and generation (mother/father/aunt, uncle vs. brother/sister/cousin, etc.). This would tell us whether we are dealing with an inter- or intra-generational phenomenon.

Question 24 presents a different problem. Given the pervasive existence of double standards on the basis of sex, by failing to differentiate the response option by sex we will not be able to recognize the existence of double standards in society with respect to smoking behaviour. To solve the identified **D1** problem, "Overt double standard", we would split question 24 into 2 questions:

24a. Do you think that smoking makes males more attractive?

A. yes
B. no
C. No difference

24b. Do you think that smoking makes females more attractive?

A. yes
B. no
C. No difference

By doing so, we would be able to assess the effect of gender and check for a potential **D1** problem, "Overt Double Standard".

We would like to draw attention to another positive example, in question 17, where the question is asked by sex, thus avoiding a potential **F1** problem, "Insensitivity to difference":

17. Smoking status of your parents

Father	Mother
A. never smoke	a. never smoke
B. ex-smoker	b. ex-smoker
C. Non-smoker	c. non-smoker
D. occasional smoker	d. occasional smoker
E. smoker	e. smoker

Possible additional questions:

We do not know whether respondents are still living with their parents. Not knowing with whom they live limits the interpretation of some of the other questions. This is an example of the type of questions which are <u>not</u> there but that we would recommend adding and that would enrich the analysis significantly and would also avoid **F4** problems, "Assumed homogeneity".

We recognize that there is a limit to how many questions can be added to a questionnaire without significantly changing the cost, and potentially the response rate, of a study. Nevertheless, some questions would add so much depth to an analysis that it is worth considering ways in which to add them or trade them against other questions. Already dropping question 9 opens space for an additional question. The next question we would suggest adding would be to ask with whom the students live, for example:

With whom do you live? (Check all that apply)

I live alone
Father
Mother
Siblings (please specify age and sex)
Female roommate(s)
Male roommate(s)
Other (please specify, e.g. male border, aunt, grandmother, etc.)

Asking this question would avoid an **F2** problem, "Decontextualization". Among other things, the answer to this question would provide us with a much better understanding of who generates second-hand smoke at home – whether it is parents, siblings, other relatives, or roommates.

We would furthermore suggest adding questions concerning other social hierarchies we identified in the beginning: urban-rural background, migrant status, and socio-economic status (SES). The latter could be tapped by two proxy variables; Fathers' and mothers' education and occupation. This would avoid **F4** problems, "Assumed Homogeneity". Finally, it would be very interesting to ask a question of the effect of the recent war on students, whether that correlates with their smoking behaviour, and how that differs between females and males.

e) Using the *BIAS FREE* Framework during analysis of research results

The *BIAS FREE* Framework understands gender as the product of a *process* that is continually ongoing. That is the reason why all 19 bias questions need to be asked and re-asked at <u>all</u> stages of the research. This project treats gender as a static variable. This is useful as far as it goes, but we could have grasped much more of the effect of sex/gender on tobacco use at the analytical stage by being attentive to potential **F4**, "Assumed homogeneity" problems. For example, questionnaires could have been coded to identify the faculty of respondents.

This would not require further expanding the questionnaire (and hence increasing the cost of the project). Since the sampling proceeded by faculty, this could have been tracked on the questionnaire, and throughout the analysis.

We do not know what the overall proportion of female vs. male students is at the university, nor do we know what the sex ratio is within each faculty. Presumably, information would be simple to access and would help avoid an **F1** problem, "Insensitivity to difference".

The overall response rate was 85,69 % (which is a remarkably good response rate!).   The "gender distribution" was M-37,7 %, F-59,9 %**.** We presume that this means that 38% of the respondents were male, and 60% were female, but we do not know whether the response rate was the same for males and females, or whether the females had a higher response rate. If the overall sex ratio of the university is other than about 40-60 male-female, it would mean that the response rate for women was higher. This would warrant some explanation and some consideration of how such a lopsided distribution might have skewed results.

Respondents came from the following faculties: Faculty of Law, Faculty of Economics, Faculty of Medicine, Faculty of Philosophy, Faculty of Philology, Faculty of Political Sciences, Faculty of Physical Education, Faculty of Agriculture, Faculty of Technology, Faculty of Mechanical Engineering, Faculty of Forestry, Faculty of Architecture and Civil Engineering, Faculty of Electrical Engineering and Faculty of Mathematics and Natural Sciences.

In most countries, these faculties would likely have considerably different sex ratios. Assuming that such is the case at Banja Luka University, it would have been interesting to know whether the faculties with a higher proportion of males also had a higher (or lower or equal) proportion of smokers than faculties with a

lower proportion of males. This, in turn, would have allowed us to ask whether females in faculties with a higher number of males are more likely to smoke than females in faculties with a lower number of males, and whether males in faculties with a higher proportion of women are less likely to smoke than males in faculties with a lower proportion of females, avoiding an **F4** problem, "Assumed homogeneity". This would have shed some light on the effect of sex/gender in terms of group composition. If it turned out that women in male-dominated faculties are more likely to smoke than women in female-dominated faculties, and that more women are entering male-dominated faculties, it might have been one factor in explaining why smoking rates among younger, more educated women are increasing.

It would also have been interesting to analyze whether the number of female and male smokers increased from year 1 to year 4 depending on the number of women and men who smoked within each faculty.

Finally, the technical report concluded, "The research has shown that there are no important statistics differences of students' gender when we speak about prevalence of smoking, knowledge and attitudes on tobacco use and perception of tobacco control politics." Given that "Pilav et al. (2006) determined that 50% of men and 30% of women were daily smokers", this is utterly astounding and begs for a serious explanation.

This assertion is also contradicted by some of the results listed on the fact sheet:

32,7 % (M=43,7 %, Ž=25,2 %) of smokers consumes **on average a package of cigarettes a day**
88,3 % (M=86,6 %, Ž=95,1 %) are **aware** of smoking hazards
63,9 % (M=60,4 %, Ž=66,5 %) states the **health as the main factor** for smoking cessation
44,6 % (M=36,8 %, Ž=51,2 %) of smokers will continue to smoke in the course of next year
42,1 % (M=49,4 %, Ž=37,5 %) **is not familiar with law regulations** on tobacco
48,1 % (M=55,4 %, Ž=43,4 **%) is not familiar with strategy of fight** against smoking
18,5 % (M=32,1 %, Ž=15,4 %) were offered some promotional material from tobacco industry **in the last month**

While we have not conducted statistical significance tests, the image that emerges from the figures on the Fact Sheet is that women smoke less than men, that they are more aware of smoking hazards, that health reasons would weigh more heavily with women than men for smoking cessation, that women are more likely to be familiar with legal regulations of tobacco and the fight against smoking, less likely to have been offered promotional material from the tobacco industry – and yet <u>more</u> likely to see themselves as continuing to smoke in the next year. Why is that? Are women more realistic in their self assessment than

men, or are there other factors at work? Some of these questions could have been explored if the *BIAS FREE* Framework had been applied systematically during all stages of the research. Failure to do so resulted in bias problems in the questionnaire, data analysis and conclusions of the study.

f) Positive aspects of the project through bias problems avoided

The *BIAS FREE* Framework permits not only identification of problems encountered, but also of problems avoided. We looked at the dissemination of research particularly in terms of exclusion (**D2** – "Under-representation or Exclusion"). We were impressed with the scope of the dissemination of the results (a **D2** problem, "Under-representation or Exclusion", avoided) and the effort expended in addressing different audiences with audience-specific communication means (an **F2** problem, "Decontextualization", avoided). We also noted that students were part of the research team, thus increasing the objectivity of the research, (an **H3** problem, "Dominant Perspective" avoided). It was, however, not clear whether respondents were offered an opportunity to learn of the results. This is a potential H5 problem, "Objectification", treating respondents as objects to be studied instead of fully participating research subjects.

g) Summary

This critique has demonstrated that systematically employing the *BIAS FREE* Framework in the formulation of the questionnaire as well as during the data analysis would have improved the understanding of the effect of gender on smoking behaviour. Sex-disaggregated data were collected, avoiding an **F1 problem,** "Insensitivity to difference" and enriching the analysis possible as a result. However, other F1, "Insensitivity to difference" and F4 "Assumed homogeneity" problems, and a **D1** problem, "Overt double standard", precluded a much deeper analysis that would have provided much needed insights for shaping the policy and programmatic responses the study was intended to provide.

7) Critique of a Call for Proposals: "Call for Proposals: Tobacco and Gender Facilitating gender-sensitive research for tobacco control policy Development in Brazil"

a) Introduction:

This is a critique of the Call for Proposals: Tobacco and Gender, issued by RITC, using the *BIAS FREE* Framework.

To carry out the critique of the Call for Proposals (CFP), we applied the *BIAS FREE* Framework to each component of the CFP, asking if the hierarchies and dominant and non-dominant groups were identified and using the 19 questions of the Framework ourselves to see whether there was any evidence of bias (or of potential bias avoided). We will discuss the issues in the order in which they appear in the CFP, using the headings the CFP uses.

b) CFP Introduction:

The introduction lays out the issues, identifying the sex/gender, age and social class hierarchies as operative. Identifying the existing hierarchies is always the **Step One** in conducting a critical gender analysis and in using the *BIAS FREE* Framework. This is a positive example of how the CFP team has avoided an **H1** problem, "Denying Hierarchy".

c) CFP Objective:

The objective reads as follows:

"The objective of this call for proposals is to provide support for **gender-based research for advocacy that will contribute to the development of effective tobacco control policies in Brazil**. The research proposals should take into account gender issues, either as the general objective or as one of the specific objectives."

Vague terms such as "gender-based research" and "take into account gender issues" are problematic. As is evidenced by the literature in tobacco control research, the use of such vague terms reflects a lack of understanding of the need to undertake a critical gender analysis and what that would entail. This

results in an **H2** problem, "Maintaining Hierarchy", as typically the focus is on looking at gender differences (the focus of the **F** problems, "Failing to Examine Differences") without problematizing the existing gender hierarchy and power structures related to it. Taking Step Two, to identify dominant and non-dominant groups, might have avoided this problem.

Given the poor quality of many of the gender-based analysis tools that are used by many researchers across the world, it would be important to specify more clearly what type of gender analysis is desirable. The solution to this **H2** problem would be to re-word the second sentence as follows:

The research proposal should employ a critical gender analysis. This involves identifying how the gender hierarchy operates within each of the themes, how males and females are differently as well as similarly affected/respond, and how males and female are differently or similarly treated.

This wording captures all three types of problems identified in the *BIAS FREE* Framework: the H problems, "Maintaining Hierarchy", F problems, "Failing to Examine Differences", and the D problems "Using Double Standards".

d) CFP Themes:

Given that the introduction to the CFP spends a fair amount of space on health consequences of tobacco production as well as use, it is surprising that the call did not include a 6th theme on Tobacco and Health. The inclusion of a 6th theme would help overcome an **F1** problem, "Insensitivity to difference", given that there are differential effects of tobacco on women's and men's health.

e) CFP Milestones, Target Audiences, Financial Resources and Duration:

In our critique, we looked at Milestones, Target Audiences, Financial Resources and duration together, as the identified problems in each are interrelated. The target audience includes: "universities, foundations, research centres and institutes, civil society organizations, associations, and social movements". This is a wonderfully inclusive list, a **D2** problem, "Underrepresentation or exclusion", avoided.

However, when it comes to Milestones, Target Audiences, Financial Resources, there is an **F1** problem, "Insensitivity to Difference", namely a failure to recognize the different position of large-scale institutions such as universities vs. civil society organizations and social movements. Foundations, research centres and institutes may fall anywhere on a continuum from large and well-funded to small and precariously funded, with many, few or no staff. Not differentiating among potential recipients leads to an **F2** problem, "Decontextualization", a failure to consider the different social realities of dominant groups such as universities, large-scale foundations and research centres, as well as large-scale civil society organizations vs. small scale civil society organizations and social movements. The latter will typically have no paid staff or perhaps one paid organizer, and the rest will consist of committed but often overloaded volunteers. A small grant to small CSOs and social movements for the development of proposals would be the solution to this **F2** problem.

If we have read the Milestones accurately and indeed the Call for Proposals was issued on March 28 and the last day for submission of proposals was April 15, this in effect gave two weeks for an organization to prepare and submit a proposal. For a well-established, well-funded and well-staffed organization, this is quite doable. Presumably, there would be one or more staff members who would be charged with research, and who could drop some other issue they were working on in order to develop a proposal. Likewise, there would probably also be an existing organization through which drafts would be reviewed and refined.

Not so for a small movement or organization. The one staff (or volunteer coordinator) would have to get all the volunteers together, they would have to find a possible time to meet, agree to prepare a proposal, then find someone who could actually prepare a draft proposal – which in turn would need to be reviewed by others, always necessitating getting volunteers together, usually after a full-time job. For many such organizations, a period of two weeks is simply too short to be able to submit a fundable proposal. The solution to this **F2** problem would be to allow for a longer period of time to develop a proposal.

Further, it is not clear whether the funds could be used to pay the salary of a staff person to conduct the research or activity. If yes, that would make the funds more widely available, if no, again it would disadvantage small groups who do not have a paid staff person who could conduct the research/activity. Using a gradated funding scheme that would allow small organizations a somewhat higher amount would allow such organizations to participate more easily and would be the solution to this **F2** "Decontextualization" problem.

f) CFP Mandatory criteria

The CFP lists a series of items that must be contained in the proposal, but nowhere does it say that a critical gender analysis must be employed, resulting in an **H2** problem, "Maintaining a hierarchy". A simple focus on "taking gender issues into account" most often results in a focus on gender differences and in a failure to address issues related a gender hierarchy, an **H2** problem. The solution would be to reformulate the paragraph under Mandatory Criteria as follows:

Employing a critical gender analysis, beyond simply breaking down data by sex, and an explanation how such an analysis will be conducted, is a mandatory aspect of any proposal. In addition, there are a number of other requirements, as outlined below. Failure to adhere to any of the requirements will result in the proposal being disqualified.

g) CFP Review and Selection

The CFP states: "Proposals submitted in response to this call for proposals will be reviewed by a Selection Committee comprised of tobacco control experts." This means that reviewers are required to have expertise on only one-half of the identified research problem – namely knowledge about tobacco control. Totally missing is a requirement to have expertise in conducting critical gender analysis. This is an **H3** problem, "Dominant perspective". The solution to this **H3** problem would be to reformulate the sentence as follows:

Proposals submitted in response to this call for proposals will be reviewed by a Selection Committee comprised of experts in tobacco control and critical gender analysis.

If it is not possible to find reviewers who are experts in both tobacco control and critical gender analysis, a compromise solution would be to staff the committee with both types of experts.

When it comes to the Review and Selection Criteria themselves, none of the criteria includes mention of the necessity of conducting a critical gender analysis, an **H1,**"Denying hierarchies". We would propose overcoming this **H1** problem by adding another criterion:

A critical gender analysis has been integrated into all phases of the proposed work.

Looking at the table with Analysis and Selection Criteria, item C reads "Appropriate methodology". To increase the objectivity of any project, the research team should include some members of the relevant community. It would be helpful to specify this somewhere. Not including community members, results in a **D2** problem, "Under-representation or exclusion".

Overall, there should be a gender balance so that enough women (as the non-dominant group) have access to the funding. The solution to this **D2** problem, "Under-representation or exclusion", would be the inclusion of a sentence to the Selection Criteria such as:

RTCI will ensure that at least half of the funding goes to women.

This would encourage applicants to think about the gender composition of their research team, and grant reviewers to have a clear focus on gender not only in the content of the proposal, but also in the research process itself.

h) Summary:

Analyzing the CFP with the *BIAS FREE* Framework, we identified a number of problems.

The CFP is explicitly inclusive in terms of eligibility to apply for funding. However, the lack of a differentiated approach makes it a lot easier for large, well-funded and well-staffed institutions to apply than for small, poorly-funded or unfunded organizations with few or no staff (**F1** and **F2** biases "Insensitivity to Difference" and "Decontextualization" that "Maintain an existing hierarchy" – an **H2** problem).

Further, the CFP asks for "gender-based research", but does not specify what is meant by this term, nor is this selection criterion carried through when requirements are operationalized. Members of the Selection Committee themselves must be competent in critical gender analysis to be able to recognize potential gender problems – or indeed, to recognize particularly good approaches to critical gender analysis. Not addressing these issues maintains an **H3**

problem, "Dominant perspective" and results in an **H2** problem, "Maintaining a hierarchy".

To ensure the greatest objectivity of any proposed study or activity, community members should be involved as team members. By not specifying this as a requirement, a number of biases may creep in without the team recognizing this.

One of the underlying principles of the *BIAS FREE* Framework is to strengthen the objectivity of research. Objectivity is defined, in line with Longino's understanding of the term, as a quality of a scientific community, rather than as a quality of an individual researcher, practitioner or an individual piece of research– in this case, the objectivity of tobacco control research as a field of study. This involves four criteria:

1. <u>**Recognised avenues for criticism:**</u> Avenues for presentation of criticism must be the same as those for "original research".
2. <u>**Community response:**</u> Critique by a wider "scientific" community must include people with experiential expertise, as acknowledged members of the community and their participation must be actively sought. This means that all stakeholders are engaged as active participants in critical discussions.
3. <u>**Shared standards**</u> There needs, of course, to be agreement on substantive principles and what counts as knowledge and social values. However, these standards themselves must be open to criticism by appealing to other standards.
4. <u>**Equality of intellectual authority**</u> This requires that arguments must be evaluated on the basis of the agreed upon criteria, rather than on the status of the person(s) making them. Dissenting voices must not only <u>not</u> be discounted, but must be actively cultivated. Knowledge and objectivity are outcomes of social interactions and, hence, are located not in individuals but in communities.

The objectivity of individual studies is compromised by the exclusion of community members as part of the research team.

Overall, the CFP could have been strengthened if the *BIAS FREE* Framework had been applied while it was being drafted.

Section C:

8) Summary:

The critique of the three IDRC RTCI-sponsored research documents has found that all there research teams had quite different understandings of what a critical gender analysis entails within a research setting, and varying degrees of demonstrated capacity to conduct a critical gender analysis.

Overall, the <u>literature review</u> was gender insensitive. While it acknowledged the importance of sex/gender within the context of tobacco control research, it largely ignored its relevance throughout the review. This made it difficult for us to assess whether the problem stemmed from the original research, from the research team, or a combination of the two – which we expect is likely the case.

While we were asked to critique only the literature review portion of this research project, the RITC team had provided us with several other documents from this project. From these we were able to see that the F problems we identified in the literature review carried over into subsequent steps of the research – into the design of the research questionnaire and analysis of results, generating gender bias throughout the entire process.

While we would cite the F problems, "Failing to examine differences" as the main problems of this study, and in particular **F1**, "Insensitivity to differences" and **F4**, "Assumed homogeneity", we expect that many other bias problems exist in the literature that were not identified in the review.

A comprehensive and rigorous application of the *BIAS FREE* Framework, as proposed in the critique in Section B, would have helped to solve these problems.

Our critique of the <u>Survey Questionnaire</u> identified all three main problems of the *BIAS FREE* Framework. Identifying the relevant hierarchies at the outset would have avoided **H1,** "Denying hierarchy" and **H2,** "Maintaining a hierarchy", problems identified in the critique. It would also have helped to prevent some of the F and D problems, as an awareness of the operating hierarchies might have made the researchers more sensitive to the need to pay attention to sex/gender in the response options of some of the questions, avoided the identified **F1,** "Insensitivity to differences" and **F4,** "Assumed homogeneity" problems, as well as problems of D problems, "Using double standards", by differentiating the

response options by sex with respect to smoking behavior, **D1**, "Overt double standard".

Nonetheless, the overall awareness of the research team to the F problems did result in a very rich collection of data that could be disaggregated by sex. Removing the identified biases, would result in an even richer set of data and a much more thorough data analysis and conclusions.

Biases within the <u>Call for Proposals</u> cover all three types of problems. While it is explicit in its call for research on tobacco and gender, the number of problems identified: **H2**, "Maintaining a hierarchy"; **H3**, "Dominant perspective"; **F1** "Insensitivity to differences"; **F2**, "Decontextualization"; and **D2**, "Under-representation or exclusion", call into question the success of the call in addressing gender bias within the content and process of tobacco control research. The recommendations called for in our critique should help to draw attention to some of the deeply embedded structural biases not only within the research community in Brazil, but across the world.

9) Recommendations

In each of the three critiques, we have suggested a very clear step-wise process for applying the *BIAS FREE* Framework. We would recommend that researchers should apply the *BIAS FREE* Framework in a systematic and rigorous manner following the steps identified to avoid gender biases and biases arising from other social hierarchies. In brief this includes:

Step 1: Identifying the existing hierarchy(ies)
Step 2: Identify the dominant and non-dominant groups within the hierarchies
Step 3: Identify the existence of any biases by asking the 19 questions of the
          Framework.
Step 4: Take actions to address the identified biases and remove the problems.

Each of these steps needs to be repeated for each and every stage of the research process. As is evident from the critiques of the three documents under review, failure to follow these steps will likely result in biases creeping into the research process during any stage. This then leads to further compromising the research at current and subsequent stages.

While the identified problems can have profound negative effects on the research, a systematic and rigorous application of the *BIAS FREE* Framework, as proposed in each of the critiques, can successfully overcome the identified problems and lead to less-biased and therefore better research.

- Mary Anne Burke and Margrit Eichler, *BIAS FREE* Co-operative, Inc.