

Reproductive Health's Knowledge, Attitudes, and Practices
A European Youth Study Protocol
– October 13, 2009 –

I. Introduction

European youth has been facing major socio-demographic and epidemiological changes over the past 20 years. Significant drops in fertility rates, later marriage, and increases in teen pregnancy and STI rates are being reported in several countries. However, these changes coincide with greater availability of contraception including condoms, and basic sex education which seem to be contradictory.

One of the main explanations of this seemingly illogical association is the fact that the focus on reproductive health commodities is working just as a technological response to these problems, but they are not enough to promote long lasting behavioral change, especially unprotected sex. According to Marie-Louise Fry¹,

“The greatest advances toward defining the social product has been made by Kotler and Roberto (1989). These authors describe the social product as consisting of three elements relating to behaviour implementation: an idea (which may take the form of beliefs, attitudes or values); a practice (either one-off or on-going) and/or a tangible object.”

Based on this definition, not much is known about how social products for ideas and practices have been made available to European youth. Most European countries have data on the reproductive health social product defined as “tangible objects”, such as for condom consumption, rates of contraceptive

¹ http://smib.vuw.ac.nz:8081/www/ANZMAC1999/Site/F/Fry_Dann.pdf

use and reproductive health services available, etc. However, comparative data on reproductive health beliefs, attitudes, values and practices is extremely limited for this target audience.

This is true even though some specific Knowledge, Attitudes, and Practices (KAP) surveys have been conducted in selected communities and countries within Europe. For example, in 2006, Cihat et al concluded a KAP survey on reproductive health among 5,300 Turkish University Students. Also, in 2002, a major KAP survey on reproductive health was conducted in Albania with sexually active populations, sponsored by the Center for Disease Control (CDC) and other multi and bilateral agencies (e.g. UNICEF, USAID, UNFPA). Nevertheless, these studies cannot be extrapolated to the European sub-regions and the continent as a whole. Comparisons on these types of indicators is key to understanding specific distal and proxy determinants that may directly influence, mitigate, or correlate with higher levels of reproductive health KAP among European youth.

Based on this initial overview, a research plan is proposed by the Durex Network and Trendwolves to assess the reproductive health KAP level among youth aged 15 to 20 years in 17 European countries. This assessment will be developed by using and testing for reliability a unique KAP scale which includes 20 specific indicators. Prof. Gino Verleye, Ph.D. will monitor as an expert all statistics in this survey.

II. Research objectives

The main research question will be: what is the level of positive reproductive health knowledge, attitudes, and practices among European youth aged 15 to 20 years?

Based on this initial assessment, specific hypotheses will be tested, including:

Ho1: Reproductive Health KAP levels do not differ across European Countries

Ho2: Reproductive Health KAP levels do not differ between Eastern and Western European Countries

Ho3: Reproductive Health KAP levels do not differ by gender, age, race, education, and socio-economic status

Ho4: Reproductive Health KAP levels variance is not explained by age at first sex, age at first sex education, source of sex education, and/or relationship status.

III. Sampling, Data Collection and Analytical Plan

In each country to be studied, a probabilistic sampling will be conducted for youngsters aged 15 to 20 years. A sample of 600 will be collected in each country to reach a maximum margin of error of 3.9%. However, considering the need for a distribution of age that meets actual demographic distribution in each country, a quota was established for every two year subgroup. In this case, a minimum number of responses for each subgroup follow:

Age subgroup	Minimum sample size
15-16	N=200
17-18	N=200
19-20	N=200

Based on this sampling plan, Trendwolves will conduct the survey in 17 European countries by using an on-line electronic survey questionnaire. For recruitment, Trendwolves will invite members of its own database and supplemented by subscribers to Netlog.com in the participating countries to respond to the electronic questionnaire.

The final questionnaire includes 20 specific questions, many of which have been taken from the Albania Reproductive Health Survey conducted in 2002 by the CDC and various multi and bilateral partners. However, several questions were edited or new questions included for better use of results in a final scoring KAP scale. The final questionnaire includes a mix of questions on reproductive health, including unwanted pregnancy and prevention of STIs including HIV. A draft copy of the questionnaire is included in Annex 1 of this research plan.

All data collected electronically will be transferred to a single database in Excel binary format. Once the final database for all countries is consolidated, Trendwolves will transfer and make it available to the Durex Network Research Unit for descriptive and explanatory analysis of the dataset. The Durex Network Research Unit will translate the final dataset to a STATA format for final statistical analysis.

The statistical analysis plan includes, but it is not limited to the following procedures:

1. Review of all variables included in the final dataset and check for inconsistencies and missing numbers.
2. Codebook of all variables for identification of quartiles, means and medians for all variables.
3. Weighting of the dataset to adjust for distribution discrepancies by age of respondents.
4. Calculation of mean and 90% confidence intervals for all variables, especially the ones included in the final KAP survey.
5. Generation of bloxplot graphs for main variables
6. Weighting of KAP variables for generation of a final scoring KAP scale.
7. Calculation of standardized Cronbach's alpha of final scoring KAP scale, including specific calculations for each one of the three domains (knowledge, attitudes, and practices).

8. Principal component analysis of final scoring KAP scale variables.
9. Test of normal distribution (Swilk test) of final scoring KAP scale
10. Generation of a bloxplot graph for final scoring KAP scale
11. Development of a multiple linear regression model for identification of specific associations between various independent variables and final scoring KAP scale (geographical clustering adjustments will be made).
12. Model adjustment for inclusion of missing numbers in final multiple linear regression model.
13. Variance Inflation Factor (VIF) calculation for all independent variables included in the final multiple linear regression model.
14. Generation of specific two-way associative graphs for specific independent variables over the dependent variable (scoring KAP scale).
15. Based on a significant prediction of the multiple linear regression model, identification of specific coefficients of association, levels of predictability, and modeling assumptions of final testing.
16. Confounding and interaction testing for all independent variables included in the final multiple linear regression model.

Based on this statistical analytic approach, results will be reported in a detailed technical document for peer revision (independent reviewers). Once, final comments and recommendations are included in the final report, a copy will be provided to the Durex Network communications team for final dissemination of results.

IV. Use of Research Results

The use of the results of this study is multiple, including: a) publication of a Face of Global Sex report (www.durexnetwork.org) with a narrative of the main study results; b) organization of a press conference with representatives from the international media; c) elaboration of manuscripts and submission to scientific journals; d) presentation of the main results during an international scientific event on human sexuality; and e) refinement of policy and programmatic efforts aiming at changing behavior of young populations in Europe.

V. Ethical Considerations and Potential Conflict of Interests

This study will be funded by the Durex Network, the social marketing unit of SSL-International, a UK consumer healthcare company. SSL-International produces and commercializes condoms and develops consumers campaigns aimed at increasing sales of condoms. However, the main objective of this study is to focus on the assessment of reproductive health knowledge, attitudes, and practices of young people living in Europe. As the Durex Network focuses specifically on the development of social programs, the unit is committed to using the findings for the generation of new knowledge on promoting safer sex among young populations in collaboration with multiple public and non-for-profit partners.

Furthermore, all activities involved in this study will take into consideration the four main ethics in research principles: a) free consent; b) no-

harm; c) justice; and d) beneficence. First, as included in the final questionnaire, an initial description of the main study objectives and confirmation of free consent will be provided to all potential respondents involved in the actual study. Respondents will also be entitled to stop responding or participating in the study at anytime.

Secondly, if at any time, any respondent reports problems with the questions being asked during the survey, they will be allowed to cease responding to further questions immediately.

Thirdly, no subjects will be discriminated against for participation in the study experiment other than the specific demographic and socio-economic variables (control variables) clearly indicated in this research plan.

Finally, as previously indicated, the main objective of this study is to benefit a large number of communities and individuals in Europe with better understanding of current levels of reproductive health knowledge, attitudes and practices. In case the study demonstrates that the KAP levels are either low or high in all 17 countries, the results of the study will be made widely available to a number of audiences as indicated in the section about use of study results above.

Annex1 Proposed Questionnaire

You are invited to participate in a sexual health study, aiming to collect information about knowledge, attitudes and practices.

We value your opinion and thank you in advance for your time.

It should take approximately 10 minutes to complete the interview. The interview has 3 profiling questions (Gender, Age and Country) and 20 questions about sexual health.

You are not asked for your name or other identifiers. Participation is completely anonymous. Analysis will not be conducted on an individual basis, but collated by coding types of gender, race, and age. **No identifying information about you will be recorded by the data processing software.**

If you should interrupt your participation in the interview, you will be able to return to the same point at a later time or date. We do hope you enjoy taking part. Your participation in this study is voluntary; you may refuse to answer any particular questions or to participate altogether. If you decide not to take part, you may withdraw from the study at any time.

KNOWLEDGE

1. During a woman's menstrual cycle, are there certain days when she is more likely to become pregnant if she has sexual intercourse?

1. YES
2. NO
3. DO NOT KNOW

2. I would like to know if you are in agreement with the following statement

A woman can become pregnant the first time she has sexual intercourse

1. Agree
2. Disagree
3. Do not Know

3. Do you want to have more information about contraceptive/prevention methods?

1. YES
2. NO
3. DON'T KNOW

4. Some people use condoms to prevent sexually transmitted infections and pregnancy. How effective do you think a properly used condom is for this purpose?

Pregnancy Prevention	STI Prevention
<ol style="list-style-type: none">1. Very Effective2. Effective3. Somewhat effective4. Not effective5. Very Ineffective	<ol style="list-style-type: none">1. Very Effective2. Effective3. Somewhat effective4. Not effective5. Very Ineffective

5. Do you know where to find and seek medical treatment and information for sexual health issues?

Medical Treatment for Sexual Health Issues	Information for Sexual Health Issues
<ol style="list-style-type: none">1. YES2. NO	<ol style="list-style-type: none">1. YES2. NO

6. Would you expect someone who has HIV to show any visual symptoms?

1. YES
2. NO
3. Don't Know

7. Please tell me whether you think that Sexually Transmitted Infections (including HIV/AIDS, Chlamydia, etc.) can be transmitted in the following ways?

	<u>YES</u>	<u>NO</u>	<u>Don't Know</u>
A. Through blood donation/transfusion	1	2	8
B. Using public toilets	1	2	8
C. Through kissing	1	2	8
D. Through unprotected sexual intercourse between a man and a woman	1	2	8
E. Through unprotected sexual intercourse between men	1	2	8

8. What can a person do to reduce the risk of getting Sexually Transmitted Infections?

	YES	NO	DK
A. ALWAYS USE CONDOMS	1	2	8
B. ABSTAIN FROM SEX	1	2	8
C. HAVE ONLY ONE PARTNER/STAY FAITHFUL TO ONE PARTNER	1	2	8
D. USE WITHDRAWAL METHOD	1	2	8

ATTITUDES

9. How much of a risk do you think you personally have of getting a Sexually Transmitted Infection and an unwanted pregnancy? Would you say you are at:

Unwanted Pregnancy	STI
<ol style="list-style-type: none"> 1. Great risk, 2. Moderate Risk, 3. Little risk 4. No risk at all 5. DON'T KNOW 	<ol style="list-style-type: none"> 1. Great risk 2. Moderate Risk 3. Little risk 4. No risk at all 5. DON'T KNOW

10. Do you think that you will use a contraceptive/prevention method during the next 3 months?

1. YES
2. NO
3. ONLY IF PARTNERS INSIST
4. NOT SURE

11. Please indicate whether you agree or disagree with the following statements about condoms

	Totally Agree	Agree	Neither Agree nor Disagree	Disagree	Totally Disagree
A. Using condoms with a new partner is a sensible/smart idea	1	2	3	4	5
B. Using condoms is not necessary if you know your partner	1	2	3	4	5
C. It is easy to discuss using a condom with a prospective partner	1	2	3	4	5
D. Condoms diminish sexual enjoyment	1	2	3	4	5
E. It is embarrassing to ask for condoms in Family Planning clinics or pharmacies	1	2	3	4	5

12. If your partner would want to use a condom when having sex with you, would you feel:

<u>AGREE</u>	Totally Agree	Agree	Neither Agree nor Disagree	Disagree	Totally Disagree
A. Insulted or angry?	1	2	3	4	5
B. Safe from getting pregnant?	1	2	3	4	5
C. Like you had done something wrong?	1	2	3	4	5
D. Safe from getting STIs or HIV/AIDS?	1	2	3	4	5
E. Suspicious that he/she may sleep around?	1	2	3	4	5

13. Below is a list of statements people have made as to why they may oppose sex education; please rate how strongly you agree with each on a scale of 1 to 5. 1 means you strongly agree and 5 you strongly disagree.

	Totally Agree	Agree	Neither Agree nor Disagree	Disagree	Totally Disagree
A. Sex education will give adolescents the idea to begin sex earlier	1	2	3	4	5
B. Sex education should be taught only at home	1	2	3	4	5
C. Sex education goes against my religious beliefs	1	2	3	4	5
D. Teachers do not have enough training to teach such subjects	1	2	3	4	5

14. Would you use a condom during your first sexual intercourse with a new partner?

1. Yes
2. No
3. Maybe

PRACTICE

15. When you last had sexual intercourse, did you or your partner use any form of contraception?

1. YES
2. NO
3. Don't know/Cannot remember

16. Some people use condoms for reasons other than birth control, for instance because they are concerned about getting infections that can result from sexual intercourse. Have you ever used condoms for:

1. Birth control only
2. Disease prevention only
3. Both,
4. You have never used a condom?
5. USED CONDOM OUT OF CURIOSITY
6. NOT SURE/ DO NOT REMEMBER

17. How often do you ask a partner to use a condom?

1. Every time with every partner
2. The first time, every time I have a new partner
3. Occasionally
4. Only once
5. Never

18. Did you use condoms the last time you had sexual intercourse?

1. Yes
2. No
3. DON'T KNOW / REFUSAL

19. During the past 12 months, have you visited a health facility to obtain

	YES	NO	DON'T KNOW DON'T REM.
A. Contraceptives	1	2	8
B. Information or treatment for STIs	1	2	8
C. Information on how to avoid pregnancy	1	2	8

20. Have you dated more than one person at a time and had sexual intercourse with them?

1. YES
2. NO
3. Refused to Answer