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High school students' knowledge and attitudes towards HIV/AIDS

Baseline measures and the effectiveness of a nationwide, school-based program for HIV prevention and stigma reduction in Greece

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This program was made possible through the lead support of the



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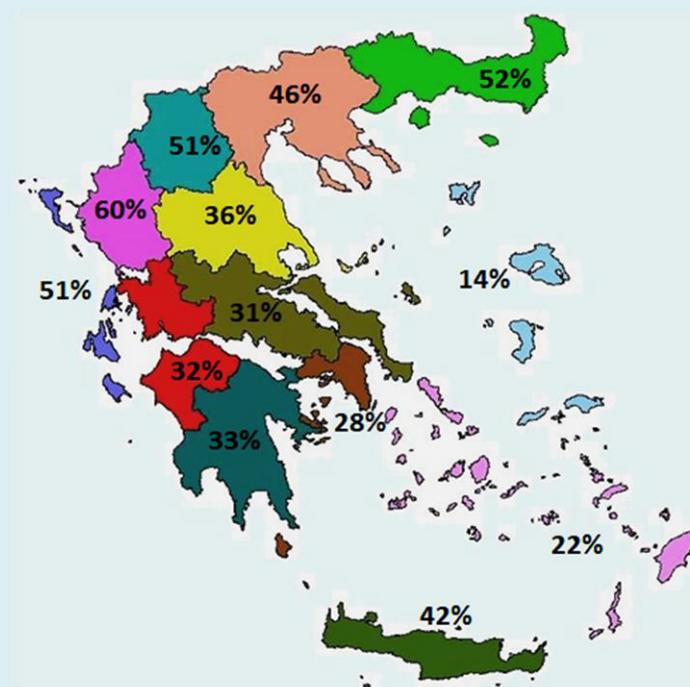
Background & Objectives

- HIV prevalence is relatively high among youths in Greece with roughly 25% of annual new diagnoses concerning people aged 15-29 years¹.
- HIV/AIDS remains a highly stigmatized condition in Greece. People living with HIV often face numerous adversities at various levels of social life.
- Still, sexual education is not a part of the formal education provided by Greek schools. No HIV prevention or stigma reduction programs have been consistently implemented, nor tested for their effectiveness.
- The study consisted of **two parts**. The objectives of the study's first part were:
 - to identify students' preferred sources of information about sex-related issues
 - to assess students' baseline knowledge about HIV/AIDS and attitudes towards PLWH
 - to test for gender, region or school type differences in the above variables
- The objective of the study's second part was:
 - to evaluate the effect on students' knowledge about HIV/AIDS and attitudes towards PLWH of a nationwide, school-based program for HIV prevention and stigma reduction



Background

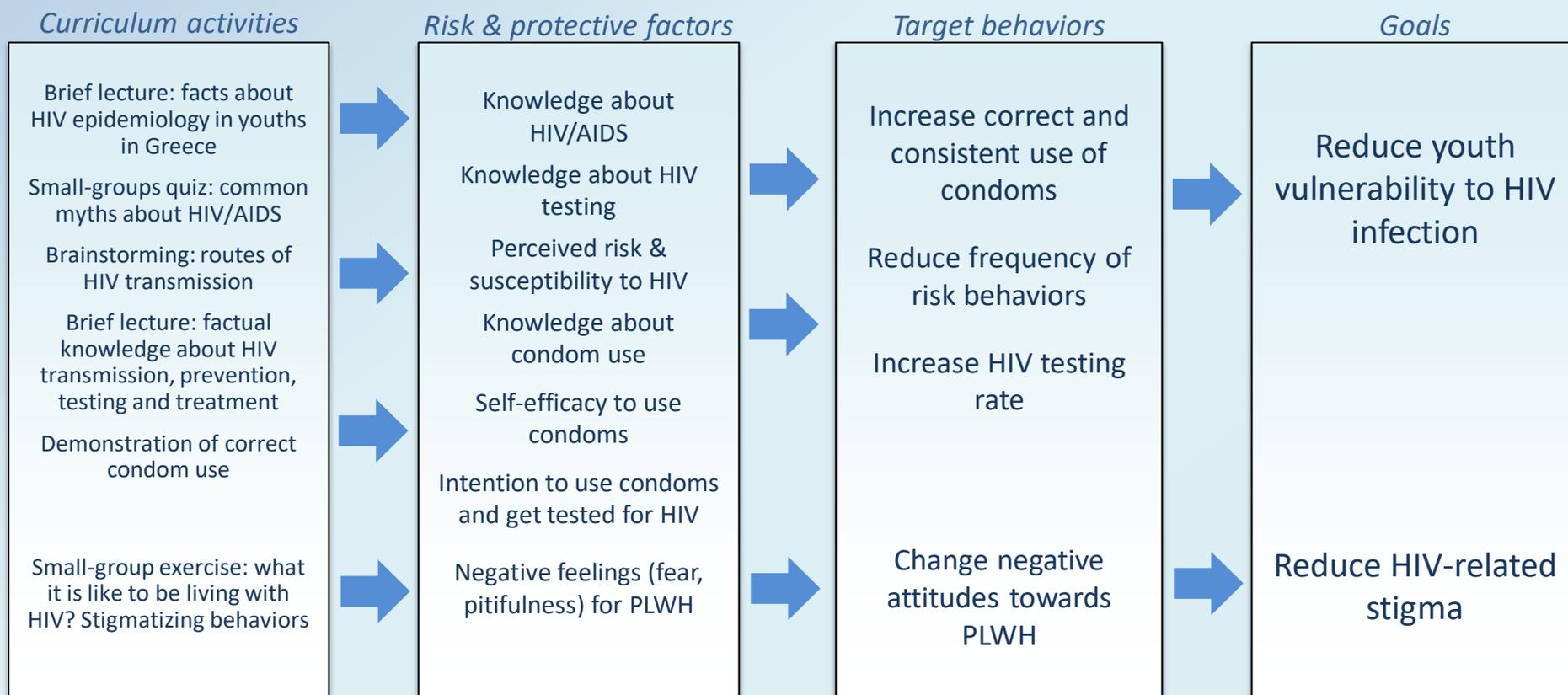
- During the 2017-18 school year, **Centre for Life** implemented the first nationwide, school-based HIV education and prevention program, authorized by the **Greek Ministry of Education**, scientifically edited by the **National School of Public Health** and funded by the **Stavros Niarchos Foundation**.
- Its **aims**:
 - to raise high-school students' awareness of HIV/AIDS
 - to promote safe sexual behavior
 - to reduce HIV-related stigma
- In total, the program addressed **65,389** 2nd and 3rd grade students of **601** high schools (34% of the total population) in the whole Greek mainland and islands.



% of schools covered by geographical region

Background

- According to standard practice², the program was based on a theory-driven logic model outlining its target variables and key interventions.



Methods

- Participants

A national sample of 4,090 (48.9% female) 2nd and 3rd grade students of 98 Greek high-schools in which the program was implemented, stratified by district and school type (general or vocational lyceum), with a mean age of 16.45 years ($SD=0.81$, range: 15-22) participated in the first part of the study, 1,060 (52.2% female) of whom also took part in the study's second part.

- Measures

Knowledge of HIV/AIDS and attitudes towards people living with HIV were assessed using adapted in Greek versions of the HIV Knowledge Questionnaire³ and the HIV Stigma Scale⁴. Cronbach's alphas for these two scales in this sample were .70 and .87 respectively. Frequency of turning to various sources of information about sex-related issues was also assessed.

- Procedure

The respondents filled the questionnaire before the intervention had commenced and those that also participated in the study's second part right after its completion as well. All data were anonymous and treated with utmost confidentiality. Consent was granted from all participating students, their parents and school principal.

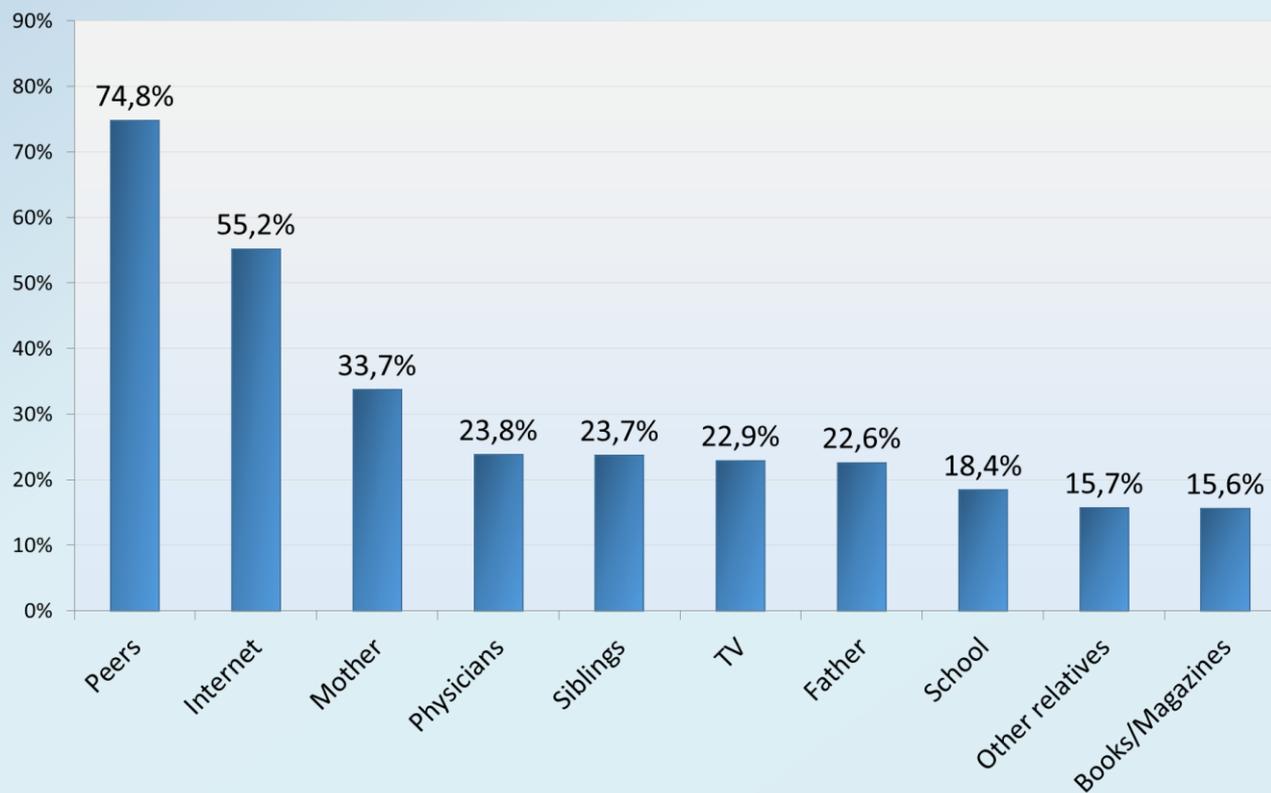
- Analysis

Multivariate and mixed design analysis of variance were the main analytic procedures used to evaluate main effects and interactions on knowledge of and attitudes towards HIV/AIDS. Frequency tables and chi-square tests were used to assess differences in preferred sources of information concerning sex. Level of statistical significance is .001.

Results

Preferred sources of information on sex-related issues

- Peers (75%) and the internet (55%) are found to be the most frequently reported sources of information on issues regarding sex, unlike school (18%).
- 70% of students report being unsatisfied with the sexual education provided by school.



Results

Knowledge of HIV/AIDS (pre-intervention)

- On a scale from 0 to 10, the mean number of total correct responses is **4.88** ($SD=2.50$, range: 0-10), 95% C.I. [4.80-4.96].
- Significant difference between students of general ($M=5.17$, $SD=0.05$) and vocational ($M=4.04$, $SD=0.12$) lyceums ($F(1, 3865)= 76.16$, $p<.001$, $\eta^2=.019$).
- No significant gender or region differences.
- A large portion of students seems to ignore even basic facts about HIV/AIDS:
 - **77%** falsely respond that an HIV test taken one week after having had unprotected sex can show if one has contracted HIV
 - **74%** falsely respond that HIV can be diagnosed through a general blood test
 - **61%** falsely respond that there is a vaccine that can protect people from getting HIV
 - **53%** falsely respond that HIV can be transmitted through coughing and sneezing
 - **45%** falsely respond that a person cannot get HIV if taking antibiotics
 - **44%** falsely respond that severe symptoms develop soon after infection
 - **43%** falsely respond that one can get HIV by sharing a hot tube or swimming pool
 - **42%** falsely respond that HIV can be transmitted by sharing a glass of water
 - **39%** falsely respond that a woman cannot get HIV if she has sex during her period
 - **35%** falsely respond that contraceptives protect a woman from getting HIV



Results

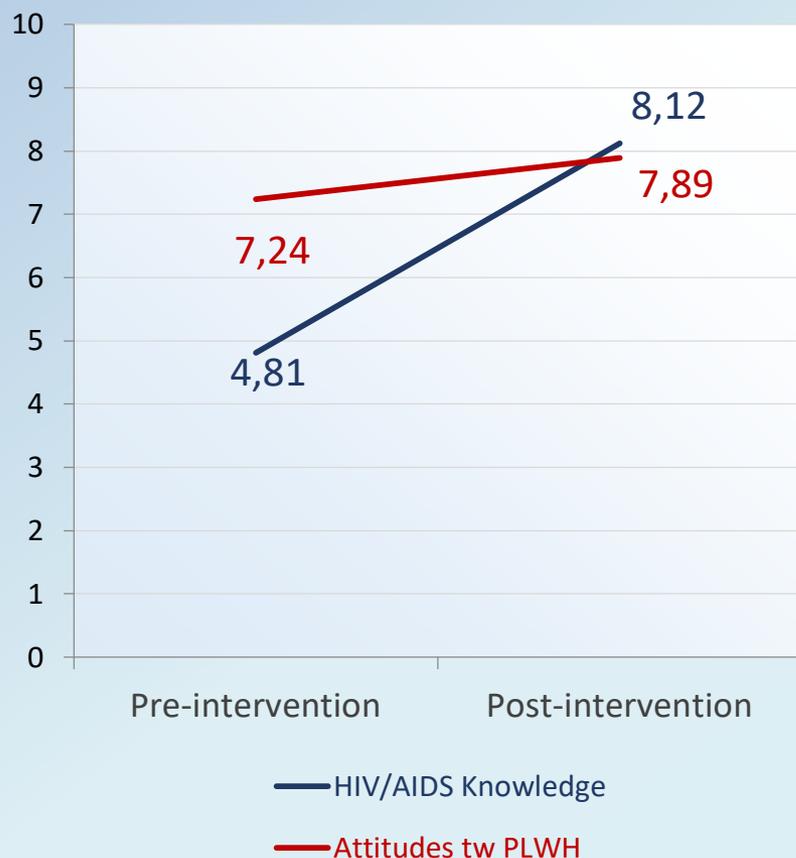
Attitudes towards people living with HIV (pre-intervention)

- On a scale from 0 to 10 (higher values indicate more positive attitudes), the mean score is **7.25** ($SD=1.49$, range: 0-10), 95% C.I. [7.20-7.29].
- Female students ($M=7.55$, $SD=0.06$), compared to males ($M=6.69$, $SD=0.04$), have slightly more positive attitudes towards PLWH ($F(1, 3878)=132.80$, $p<.001$, $\eta^2=.033$).
- Students of general ($M=7.41$, $SD=0.03$), compared to students of vocational ($M=6.83$, $SD=0.07$) lyceums, have slightly more positive attitudes towards PLWH ($F(1, 3865)=54.28$, $p<.001$, $\eta^2=.014$).
- No significant region differences are observed.
- A considerable portion of students expresses negative attitudes towards PLWH:
 - **49%** would not drink from a tap, if an HIV+ person had just drunk from it
 - **46%** believe it is unsafe for an HIV+ person to look after somebody else's children
 - **25%** would not employ someone with HIV
 - **22%** would feel afraid to be around people with HIV
 - **20%** would not like to sit next to an HIV+ person, if travelling by public or private transport
 - **11%** would not like to be friends with an HIV+ person



Results

Intervention effect on HIV/AIDS knowledge and attitudes



- Statistically significant and large effect on students' knowledge of HIV/AIDS ($F(1, 969)=1033.98, p<.001, \eta^2=.52$).
- No gender, region or school type interactions.
- Statistically significant but smaller effect on students' attitudes towards PLWH ($F(1, 1024)=169.48, p<.001, \eta^2=.14$).
- Students of general lyceums showed a larger increase ($M_d=0.71$) compared to students of vocational lyceums ($M_d=0.44$) ($F(1, 1024)=9.51, p=.002$).
- No gender or regional interactions.

Conclusion

- Contrary to the widely acknowledged beneficial role that schools can have in the sexual education of youths, our findings suggest that this is certainly not the case in Greece.
 - High-school students have quite poor knowledge of even basic facts about HIV/AIDS.
 - Interestingly, students' attitudes towards PLWH are found to be relatively positive (Youths' more accepting mindset? Sexual stereotypes not formed at this age?).
- Our findings show that even a brief intervention, though carefully designed, theory-driven and oriented towards clearly defined goals, can induce significant positive changes.

References

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This program was made possible through the lead support of the   ΙΔΡΥΜΑ ΣΤΑΥΡΟΣ ΝΙΑΡΧΟΣ
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