Advantages of web survey over self-administered paper questionnaires (P&P) include: reduced costs of data collection, avoidance of data entry errors by automatically filling answers, and accessibility of data in a short time.

On the other side, web questionnaires are dependent on the integrity of participant schools’ internet connection and associated with increasing difficulty in scheduling data collection as well as the need to ensure only selected students participate with only one survey each, preserving their anonymity [1].

To investigate the comparability of a wide range of data concerning sensitive and non-sensitive behaviors obtained via Web versus P&P questionnaires in a national representative sample of students.

### Design

31 participating schools were randomly drawn from the ESPAD®Italia 2014 (European School Survey Project on Alcohol and other Drugs) sample, a survey monitoring psychoactive substance use among students aged between 15 and 19.

Two full courses of study (from 1st grade to 5th grade) were randomly selected and assigned to P&P or Web condition.

Schools refusing to participate were replaced with other schools randomly drawn with the same characteristics (geographical and school type). A total of 53 schools refused to participate for various reasons (17 due to the lack of informatics facilities).

2,223 high-school students aged 15-19 years completed the P&P questionnaire, and 1,937 the Web-survey.

### Measurements

Respondents’ sensitive (drug use) and non-sensitive (fruits and vegetables consumption) behaviors were measured. Inconsistencies and missing answers were compared between P&P and Web-based questionnaires. To assess differences in data quality, missing answers for gender and birth year were considered as well as inconsistencies [2], no answer to 50% of the core questions and max use (40 or more) for all substances.

### Analysis

Comparison between categorical variables was performed by the Chi-square test or by Fisher’s exact test if an expected cell count was 5. To compare prevalence differences, Odds Ratio (OR) values were also reported. Two sample proportion test was used to compare prevalence from the comparison study with national prevalence estimates.

### Conflict of interest: None

### References


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### Results

The web mode found the higher proportion of questionnaires with more than 50% core questions missing (4.3% vs 0.9%, p<0.001) and of deleted questionnaires (10.2% vs 7.9%, p=0.01).

### Conclusions

A mode effect was observed, as well as a self-selection of the schools able to participate in web-based administration.

Every year, since 1999, the Italian National Research Council conducts a survey collecting data about risk behaviors among high school students. Before making any changes in the administration mode of an ongoing national surveillance system, it is critical to consider the potential effects that such changes might have on schools’ participation, respondents’ participation, data quality and prevalence estimates, especially because changes could disrupt the ability to assess trends over time.