

## ONLINE ONLY SUPPLEMENTARY MATERIAL

### Contents

- **Table S1.** Taiwan GSHS Questions that were used to determine whether respondents had sexual intercourse and to evaluate the validity of responses
- **Table S2.** The variables in GSHS involved in data analyses
- **References**

**Tables S1-S2:** The questions in these tables were obtained from the Centers for Disease Control and Prevention of the United States.<sup>1</sup> However, the questions were written in Chinese when presented to the subjects.

**Table S1.** Taiwan GSHS Questions that were used to determine whether respondents had sexual intercourse and to evaluate the validity of responses:

Question	Option
1. Have you ever had sexual intercourse?	A. Yes B. No
2. How old were you when you had sexual intercourse for the first time?	A. I have never had sexual intercourse B. 11 years old or younger C. 12 years old D. 13 years old E. 14 years old F. 15 years old * G. 16 or 17 years old * H. 18 years old or older
3. During your life, with how many people have you had sexual intercourse?	A. I have never had sexual intercourse B. 1 person C. 2 people D. 3 people E. 4 people F. 5 people G. 6 or more people
4. The first time you had sexual intercourse, what method of birth control did you use to prevent pregnancy?	A. I have never had sexual intercourse B. No method was used to prevent pregnancy C. Birth control pills D. Condoms E. Depo-Provera ( or any injectable birth control, Nuva Ring (or any birth control ring), Implanon ( or any implant), or any IUD F. Withdrawal G. Some other method H. Not sure
5. The last time you had sexual intercourse, did you or your partner use a condom?	A. I have never had sexual intercourse B. Yes C. No
6. The last time you had sexual intercourse, did you or your partner use any other method of birth control, such as withdrawal, rhythm (safe time), birth control pills, or any other method to prevent pregnancy?	A. I have never had sexual intercourse B. Yes C. No D. I do not know
7. After having sexual intercourse, have you or your partner ever used emergency after-sex contraceptive pills to prevent pregnancy?	A. I have never had sexual intercourse B. Yes C. No D. I do not know

<b>8. Have you or your sexual partner ever had an induced abortion?</b>	A. I have never had sexual intercourse B. Yes C. No D. I do not know
<b>No sexual intercourse:</b>	Answered 'No' for Qn. 1 and 'I have never had sexual intercourse' for Qn. 2-8
<b>Had sexual intercourse:</b>	Answered 'Yes' for Qn. 1 and other than 'I have never had sexual intercourse' for Qn. 2-8
<b>Invalid response:</b>	Contradictory response such as answered 'Yes' for Qn. 1 and answered 'I have never had sexual intercourse' for any one of Qn. 2-8

*\* In 2012, option G became '16 years old or older' without option 'H. 18 years old or older'. However, starting from 2013, option G and H were '16 or 17 years old' and '18 years old or older' respectively. Therefore, in our analyses throughout this paper, we combined the data of option 'G. 16 or 17 years old' and 'H. 18 years old or older' into '16 years old or older'.*

**Table S2.** The variables in GSHS involved in data analyses

Variable	Question / Description	Option
<b>Demographics</b>	What is your sex?	A. Male B. Female
	How old are you?	A. 11 years old or younger B. 12 years old C. 13 years old D. 14 years old E. 15 years old *F. 16 years old *G. 17 years old *H. 18 years old or older
	Degree of urbanization **	Big city / Small city / Urban town / Rural town
	In what grade are you?	A. Grade 1 # B. Grade 2 # C. Grade 3 #
	School type **	Junior high school / Senior high school / Vocational high school / Comprehensive school / Night school
<b>Knowledge about sexually transmitted diseases</b>	Do you agree with the following statement: "Even if they had received the cervical cancer vaccine, women still need to have a Pap smear regularly"?	A. Yes B. No C. I do not know
<b>Substance use</b>	During the past 30 days, on how many days did you smoke cigarettes?	A. 0 days B. 1 or 2 days C. 3 to 5 days D. 6 to 9 days E. 10 to 19 days F. 20 to 29 days G. All 30 days
	During the past 30 days, on the days you drank alcohol, how many drinks did you usually drink per day?	A. I did not drink alcohol during the past 30 days B. Less than one drink C. 1 drink D. 2 drinks E. 3 drinks F. 4 drinks G. 5 or more drinks
<b>Sexual behaviors</b>	Have you ever had sexual intercourse?	A. Yes B. No

During your life, with how many people have you had sexual intercourse?	<ul style="list-style-type: none"> <li>A. I have never had sexual intercourse</li> <li>B. 1 person</li> <li>C. 2 people</li> <li>D. 3 people</li> <li>E. 4 people</li> <li>F. 5 people</li> <li>G. 6 or more people</li> </ul>
The first time you had sexual intercourse, what method of birth control did you use to prevent pregnancy	<ul style="list-style-type: none"> <li>A. I have never had sexual intercourse</li> <li>B. No method was used to prevent pregnancy</li> <li>C. Birth control pills</li> <li>D. Condoms</li> <li>E. Depo-Provera (or any injectable birth control, Nuva Ring (or any birth control ring), Implanon (or any implant), or any IUD</li> <li>F. Withdrawal</li> <li>G. Some other method</li> <li>H. Not sure</li> </ul>
The last time you had sexual intercourse, did you or your partner use a condom?	<ul style="list-style-type: none"> <li>A. I have never had sexual intercourse</li> <li>B. Yes</li> <li>C. No</li> </ul>
The last time you had sexual intercourse, did you or your partner use any other method of birth control, such as withdrawal, rhythm (safe time), birth control pills, or any other method to prevent pregnancy?	<ul style="list-style-type: none"> <li>A. I have never had sexual intercourse</li> <li>B. Yes</li> <li>C. No</li> <li>D. I do not know</li> </ul>

\* In 2012, option F was 16 years old or older. However, from 2013 to 2016, option F was changed to 16 years old and option G (17 years old) and option H (18 years old or older) were added.

\*\* The data for 'Degree of urbanization' and 'School type' were entered by those who collected the data, they were not answered by students.

# Grade 1, 2 and 3 mean Grade 7, 8 and 9 when GSHS was conducted in 2012, 2014 and 2016. Grade 1, 2 and 3 mean Grade 10, 11 and 12 when GSHS was conducted in 2013 and 2015.

## References

1. Taiwan - Global School-based Student Health Survey (GSHS) 2016 [Available from: <https://www.cdc.gov/gshs/countries/westpacific/taiwan.htm> accessed 2 Nov 2020.