

DATASPEAK
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Mary Kay Kenney: Good afternoon. Welcome to today's DataSpeak web conference Presenting New Findings on the Health Behaviors of School-Aged Children. My name is Dr. Mary Kay Kenney, and I'm a health statistician with the Office of Data and Program Development in the Maternal and Child Health Bureau. The DataSpeak series is sponsored through the Office of Maternal and Child Health Information Resource Center. Today we are pleased to present the sixth and final DataSpeak web conference of 2008.

Archives of the first five DataSpeak programs of 2008, along with all other programs held since 2000, can be found on the MCH IRC website at the address on the slide.

Today's program will focus on selected findings from the 2005-2006 health behavior in school-aged children survey, a cross-national study conducted in collaboration with the World Health Organization.

The U.S. portion of the survey is co-funded by the Maternal and Child Health Bureau and the National Institute of Child Health and Human Development at the National Institutes of Health.

We are pleased to have two knowledgeable presenters join us for this program. Our first speaker will be Dr. Ron Iannotti, a senior scientist for the National Institute of Child Health and Human Development and the principal investigator for the study. Dr. Iannotti will introduce the study and discuss findings on obesity and physical obesity with a comparison of U.S. scores to the international average. He will also provide findings on bullying with trend data from previous versions of the HBSC survey.

Our second presenter will be Dr. Bruce Simons-Morton, Chief of the Prevention Research Branch at the National Institute of Child Health and Human Development.

His presentation will provide selected international findings on substance abuse. This will include a comparison of international policy, data showing prevalence and a discussion of trends.

It is now my pleasure to introduce Gretchen Noonan, the moderator for today's program. Gretchen, I will now turn the floor over to you.

Gretchen Noonan: Thank you, Mary Kay. And welcome to all of our participants today. We're delighted to have everyone with us. Before we begin our presentations, I have some brief technical guidance for everyone in the audience. It will take just one moment.

First, I'd like to tell you that your phone line will be muted during the presentations. After we hear all the presentations we'll have a question-and-answer session. During that time you'll have an opportunity to ask questions of the operator who will come on just before that and provide instructions for how to do that.

Questions can be posted online at any time during the program. If you're logged in via the Internet, you can enter your question in the questions box located on the left side of your screen and hit Enter.

Also, if you're logged in via the Internet, a feedback form will be provided at the end of the presentation. We would really appreciate it if you would take just a moment to complete the brief form and will provide instructions for doing so at the time.

If you encounter any technical problems during the presentation, which we hope is not the case, please feel free to call our MCH IRC help line. That number is 202-842-2000.

Finally, I'd just like to let everyone know that there are some additional resources on today's topic that have been posted on the DataSpeak website including some of those that our speakers will highlight during their presentations.

Now I'd like to turn to our first presenter, Dr. Ronald Iannotti, of the National Institute For Child Health and Human Development. Thanks so much for joining us today, Ron.

Ron Iannotti: Thank you, Gretchen. It's really a pleasure to be able to present some of these results from the HBSC survey. And I'd also like to take a moment to just acknowledge the contribution of the other investigators from the National Institute of Child Health and Development and from the Health Resources and Services Administration and, of course, the scientists from all of the other participating countries.

Gretchen Noonan: Absolutely. Thank you.

As we learned from Mary Kay in the introduction, the Health Behavior in School-Aged Children study is an international effort. And I understand the U.S. National Report for the latest round of HBSC data is soon being released. To provide some background for the presentation today, can you briefly tell us about the history of the HBSC study and the purpose of the survey?

Ron Iannotti: Certainly. Back in 1982, actually, investigators from Denmark, Finland and Norway wanted to be able to compare adolescent health behaviors across the three countries.

And first they had to agree on the essential areas of health behavior that needed to be assessed. And then in order to compare adolescent behaviors across countries with different languages they had to make sure that the same questions were asked in each country and that the methods for conducting the survey were identical. And then shortly after that, investigators from England and Austria joined the group. They really conducted the first HBSC International Survey in the 1983-1984 school year. The first U.S. HBSC survey was conducted during the 1997-1998 school year.

From the beginning, HBSC has actually grown substantially, from these first five countries in 1984, to over 40 countries participating in the 2005-2006 survey. And this tremendous effort at coordinating the surveys across 40 countries continues today. It involves translation of surveys

from English into the country's native language, back translation into English and interviewing children in each country to determine if they are interpreting the survey items in the same way.

Survey methodology also has to be the same. And in addition it has to be made to sample children in the school classrooms and the focus on children ages 11, 13 and 15. Survey's conducted every four years. And we're currently planning for the next survey during the 2009-2010 survey.

In this map, you can see that in addition to the U.S. and Canada, and Greenland, in the little box on the left, almost all of the European countries are involved. And if your high school geography is as bad as mine, you'll see that there are some countries that are not participating yet.

And this is Belarus and then Moldova and then the three countries in this group are Bosnia, Herzegovina, Kosovo and Montenegro and Serbia. Otherwise, we include countries like Israel, as far south as Israel and Turkey, and north as Finland, Iceland, Greenland. East as Russia. And west as Ireland and Portugal and Great Britain.

Now, the goals of HBSC is obviously to increase our understanding of young people's health and well-being. In addition to looking at health behaviors, also look at the social context of these health behaviors. And then we use these data to help inform policy and practice both at the national and at international levels. In the fact that there are so many countries involved, it enables us to make comparisons across countries which can be very useful for identifying which programs in which countries are working and how other countries may change to adopt these programs.

Gretchen Noonan: Great. Thank you. I think that's a great overview and provides some important context for the data that you and Bruce will be presenting. So based on the results of the U.S. portion of the HBSC survey, what are some of the most pressing health problems for school-aged children in this country?

Ron Iannotti: Probably one of the most obvious problems in the U.S. has been obesity. Obesity is a risk factor for chronic illnesses including Type II diabetes and cardiovascular diseases. We're currently seeing adolescents and young adults with Type II diabetes which in the past had largely been restricted to older adults. And one of the causes of obesity is a failure to maintain an energy balance; that is, when caloric intake is the same as energy expenditure. However, when caloric intake exceeds energy expenditure you have a risk of obesity.

There's particularly a problem in the U.S. where we can see from the most recent HBSC data that boys were more likely, U.S. boys were more like to be overweight and obese than youth in other countries. The percentage for U.S. boys being overweight was 34 percent, whereas in other countries it was 16 percent. And girls, again, the U.S. girls were ranked second in terms of obesity and overweight, about approximately 26 percent of U.S. girls were overweight or obese where as in the international sample it was 11 percent.

Gretchen Noonan: Does the survey provide any insight into health behaviors that might help explain this epidemic?

Ron Iannotti: Yes, good question. The good news is that in terms of diet, which is one of the things that's contributing to this energy balance, the U.S. children ate two or more servings, a greater proportion of U.S. children ate two or more servings of fruit every day than children from

other countries. The U.S. average was 20 percent. International average was about 18 percent. But the best thing is that Healthy People 2010 has a goal of 75 percent of the U.S. population two years and older eating at least two servings of fruit.

So we have a long way to go. In terms of diet, one problem that may be contributing to the epidemic is consumption of soft drinks. There's studies showing that consumption of soft drinks is related to being overweight, and that over the last 10, 20 years there's been increase in the consumption of soft drinks by U.S. children.

And when we look at the HBSC data we see a significantly larger percentage of U.S. children, approximately 30 percent, drank soft drinks every day, and compared to children from other countries, where the average is about 25 percent.

In addition to what we eat, when and where we eat may contribute to the obesity problem. Spreading out consumption over the day with small or multiple meals makes it easier to avoid excess intake. And we can see that children in the U.S. actually were less likely to eat breakfast than children in other countries, which is a concern. So eating breakfast is one way to better control weight and reduce obesity.

And then another problem is eating at fast food restaurants. Fast food restaurants are a problem because a lot of the food served is high in fat and high in salt content.

And also because the large portion sizes, the tendency to super size, we tend to eat more. And it's been shown when children are presented with more food, they will indeed eat more than beyond when they're hungry. 45 percent of the U.S. students said they ate at fast food restaurants at least once a week.

And then another problem is dieting. Usually we think of dieting as being good. Actually for children it can be a problem. There's a risk, particularly for adolescent girls, dieting can include a cycle of dieting and binge eating. Another risk is excessive weight loss associated with anorexia. And extreme dieting has been associated with low self-esteem, depression, anxiety, eating disorders and suicidal ideation.

So the focus for children should be on eating a balanced diet following the USDA guidelines. And we see that U.S. children actually are very high in the proportion of children who are dieting.

U.S. boys ranked number one. 19 percent of the U.S. boys indicated that they dieted to lose weight. And U.S. girls were ranked among the top countries in dieting to lose weight. This remained stable across the peers we were studying. About 25 percent of the girls age 11, 29 percent at age 13, and 26 percent at age 15 indicated that they were dieting to lose weight.

Gretchen Noonan: Wow, okay. So it sounds like diet is certainly one part of this obesity equation. What about physical activity, which you mentioned earlier?

Ron Iannotti: So the other part of the equation is energy expenditure, and that's physical activity. And the good news is that boys in the U.S. were actually in the top 10 percent for physical activity among 13- and 15-year-olds. And girls actually were getting less physical activity than boys, which is probably no surprise.

But the percentage of girls meeting the national guidelines for moderate to physical activity actually decreased with age, from 26 percent at age 11 to 14 percent at age 13. The U.S. guidelines are for children to get about 60 minutes of moderate to physical activity every day. Only about 34 percent of U.S. boys get 60 minutes of physical activity per day, and obviously there's room for improvement.

Now, kind of the counterside to physical activity is sedentary behavior. And sedentary behavior contributes to energy balance by reducing energy expenditure relative to other kinds of activities, even light activities that children may engage in.

The recommendation for the American Academy of Pediatrics is that children watch two hours or less of quality television programs per day. And the good news is that a significantly larger percentage of U.S. children, 66 percent, met these recommendations for watching less than two hours of TV per day than children from other countries where the average was about 64 percent.

Now, the bad news is that Healthy People 2010 recommends that we shoot for at least 75 percent of high school students to watch two hours or less of television per day.

Gretchen Noonan: Okay. Now, have physical activity and sedentary behavior, as you were discussing, only been examined as correlates of obesity, or have you looked at how they're related to other aspects of health as well?

Ron Iannotti: We started looking at other correlates of other physical activity and sedentary behavior, both because we see physical activity as a very positive behavior that not only affects weight loss but has other health benefits. And also by identifying these correlates of physical activity, it may provide additional motivation for engaging in physical activity. So we not only looked at this behavior in the U.S. but also in other countries to see if this is a stable characteristic across countries.

And children who are engaging in physical activity tended to be higher in terms of physical health status, quality of life, self-image, positive family relationships and positive peer relationships. And, furthermore, U.S. children who engage in higher level of physical activity were less likely to have a higher level of health complaints, less complaints about their health and different symptoms of ill health, less likely to smoke and less likely to smoke marijuana.

Now, for sedentary behavior, the pattern is actually almost the reverse. Children who were higher in sedentary behavior had more health complaints, were more likely to engage in physical aggression, and were more likely to use cigarettes and alcohol. And then they reported that they were lower in quality of health, quality of life and quality of family relationships.

The sedentary behavior is not exactly the opposite of physical activity, but it certainly contributes to other health problems.

Gretchen Noonan: Now, if we could change topics. I understand that you've identified aggression and violence as another health problem for school-aged children. And what data does the recent HBSC survey provide on this topic?

Ron Iannotti: In the U.S., particularly, we've focused on bullying and violence as a topic area of interest, and there's been a growing concern with U.S. violence in the U.S.

The first U.S. HBSC survey indicated that fighting and bullying were higher in the U.S. compared to other countries.

And one result of this actually was HRSA developing a school-based program to reduce bullying and victimization. And the 2005-2006 data is actually encouraging. A significantly smaller percentage of U.S. children, approximately 10 percent, were in a physical fight three or more times in the last 12 months than children, compared to other children from other countries where that was about 14 percent.

37 percent of the U.S. students responded to the HBSC survey engaged in a fight at least once in the last 12 months. So you have occasional versus chronic fights. The U.S. Healthy People 2010 goal is to reduce the proportion of students in grades nine through 12 who engaged in a physical fight in the last 12 months to about 32 percent. We're seeing a results of 72 goal of 72 percent and that's certainly progress.

In terms of bullying, as I mentioned previously, U.S. students were more likely to be bullied or to bully others compared to children from other countries.

But in 2005-2006, only 11 percent of the U.S. school children had been bullied twice in the last two months, which is below the international average. And since 1997/1998, which is the first U.S. survey, bullying decreased in the U.S. but increased or didn't change in prevalence in all the other English-speaking countries participating in HBSC. You can see these results in these slides.

And we can see that, first of all, boys have involved in occasional bullying more frequently than girls, but we see a decrease over time in the frequency of boys bullying. And then in terms of victimization, again, boys are slightly higher.

But it decreases dramatically over the three HBSC surveys. If we look at chronic bullying, which is three or more times, we can see a similar pattern with boys again higher than the girls, but decreasing over time in terms of bullying and in terms of victimization. You see the dramatic decrease over time and girls having less experience with being victims.

Gretchen Noonan: All right. Thank you so much for your presentation, Ron. If anyone in our audience would like to contact you, would you mind providing them with some information.

Ron Iannotti: Yeah, certainly. They can e-mail me at this address that they see on the screen. The U.S. report is almost ready. I was actually working on it just a few hours ago, just tweaking a few things, making sure there's no typographical errors, but that should be ready soon. And that will be put on the NICHD website and also if they e-mail me I can forward it to them.

Gretchen Noonan: I'm sure we also will be posting a link for that on the DataSpeak website as well once that becomes available. So thank you again very much, Ron. We'll speak to you at the end during the question-and-answer period.

Now I'd like to introduce Dr. Bruce Simons-Morton, who is a colleague of Dr. Iannotti's at the national institute of child health and development. Good afternoon, Bruce.

Bruce Simons-Morton: Hi.

Gretchen Noonan: Thanks so much for being with us today. Before you discuss the specific results from the HBSC on substance use, can you tell us what kind of information was collected on substance use and what types of research questions can be addressed with this data?

Bruce Simons-Morton: The HBSC survey collects data on a variety of substance use variables, including daily, weekly, monthly smoking and drinking. Monthly and yearly cannabis use and annual and lifetime use of cocaine, Ecstasy, amphetamines and other drugs.

The survey also collects data on the age, sex, race and geographic region of the participants. This allows us to look at a number of research questions, including these three, what are the patterns of substance use by age, sex, race, and geography. How does use in the U.S.A. compare with use in other countries and how have substance use patterns changed over time.

Gretchen Noonan: And has this information obtained on substance use been valuable?

Bruce Simons-Morton: Substance use, of course, is one of the most important adolescent behaviors. So it's useful to monitor prevalence, to examine the trends in use over time, both in the U.S. and compared with other countries and then to evaluate policy considerations.

Gretchen Noonan: And HBSC is an international effort as we learned from Mary Kay and Ron. Are there any comparisons that you can make between substance use among U.S. use and substance use in other participating countries?

Bruce Simons-Morton: There are a lot of international comparisons possible. And I'm going to share with you one example labeled Example No. 1 here, cross-national comparison of drinking and marijuana use and the U.S. prevalence.

The background is the policies regarding substance use vary greatly in these three countries. So we examine policies in each country and the substance use patterns, at least drinking, drunkenness and cannabis use amongst 10th graders in the three countries.

Gretchen Noonan: You mentioned policy, how do those vary across the three countries that you just introduced?

Bruce Simons-Morton: So here, in this slide, I'll sort of walk you through this. We looked at a variety of policies in each of the three countries. So here looking first at legal age, and U.S., it's legal to drink at 21. In Canada, at 19. And Netherlands 16.

For all practical purposes in the Netherlands and Europe there's really no drinking age. It's a nominal age, drinking among adolescents is not heavily enforced or prevention is not really enforced.

In the U.S. it's a criminal offense to possess but not in Canada or the Netherlands. In the United States it's criminal to consume alcohol in many states but not in Canada or the Netherlands.

Purchase is a crime in the U.S. and in Canada. But not in the Netherlands where you might get a fine. And the jurisdiction of legislation is there's multiple jurisdictions in the U.S. But largely federal in Canada, with a couple of provincial provisions.

And then the federal, there's a more or less uniform federal policy. If you total these, you see with the highest score, the more strict policies, because all of these were either ranked 1 through 3 or 1 or 2. And it's footnoted, so you can see the policies were strictest in U.S., less strict in Canada, least strict in Netherlands.

With respect to cannabis use, again we have a similar kind of comparison where the minimum age, there's no minimum age to purchase in the U.S. or to possess or to consume. And those are criminal offenses in the U.S. while these are -- there's no minimum age in Canada to purchase, but in the Netherlands, uniquely, the only country in the world where you can legally purchase marijuana at age 18 it's possible to go to a coffee shop and purchase marijuana.

So it's sort of a controlled substance there. And the Canada and the Netherlands have pretty much a decriminalization or harm reduction approach here in all of these categories, including everything except purchasing, which is criminal in all countries.

And then the legislation jurisdiction is both federal and state in the U.S., federal and Canada. And then there's primarily federal with a few local variations.

So when you combine these two categories, you can see that the U.S. is most strict for both alcohol and cannabis, the total of 23 points in this slide compared to 15 for Canada and 12 for the Netherlands, which pretty much reflects the general pattern of policy restrictions in these countries.

Gretchen Noonan: Okay. Great. I want to point out I think our pointer is just a little off there. At least it is on my screen. So if other people are seeing that, I apologize.

But, now, if I could ask you, you just discussed policy. What about does the HBSC must provide some prevalence data on use for these substances.

Bruce Simons-Morton: Yes. So we thought it would be very interesting to compare cross countries what the prevalence with these countries with different policies. So I'm going to try this pointer again.

Here, if you look at the percent of use in the U.S. Canada and the Netherlands, there was 34 percent of 10th graders reported using alcohol in the last month. 44.2 percent in Canada and 67.9 percent in the Netherlands.

So it was pretty prevalent amongst 10th graders to drink. And you get a rate ratio using the U.S. as the reference of 1.3 for Canada and 2.0 for the Netherlands, which suggests that it's significantly higher use.

Almost twice as high use in the Netherlands as in the U.S. It could be, though, that people drink but don't get drunk, because it's just a social thing, because it's very common in Europe to have alcoholic beverages with meals.

But if you compare the percent who report frequent drunkenness, drunk three or more times in the past year, in the U.S. 27.7 percent. In Canada, 38.9 percent. And in the Netherlands, 38.3 percent. So you, again, get significant rate ratios where Canadians and Dutch are more likely to report frequent drunkenness.

Similarly with cannabis, no, not similarly, conversely, what you see is that 30-day or monthly use in the U.S. is 21.4 percent of 10th graders. In Canada it's pretty close to the same. 20 percent. And in the Netherlands it's actually lower, even though cannabis is pretty much available in the Netherlands in most communities.

Among adolescents you really see no differences. You can see these rate ratios do not differ.

Gretchen Noonan: Okay. I see where this is leading us. I think perhaps you put some of the policy and prevalence data together to make a few inferences between the relationships of the two.

Bruce Simons-Morton: We have. I think what you see here is that strict U.S. alcohol policies are pretty consistent with low alcohol prevalence. However, the strict U.S. cannabis policies are not really consistent with prevalence. There's no real -- there does not appear to be any advantages to very strict penalties and policy restrictions on cannabis use with respect to prevalence.

And always, as always, we consider the benefits of any policy within the -- with respect to the social consequences which include legal involvement including incarceration. So I think this is just something for us to think about.

And this is an interesting analysis, because there really are very few cross national comparisons of both alcohol and marijuana policy and prevalence.

Gretchen Noonan: As we know from Ron's presentation, trend analysis is possible with the HBSC going back to I think it was the 1997, 1998. Can you give us an example of trend analysis using the survey's substance use data?

Bruce Simons-Morton: And I think as Ron pointed out, there's 41 countries now involved, but there weren't that many countries in 1998 involved. But in Example 2, it was a multi-national comparison in trends of alcohol use among 10th graders.

And it would be curious to know how alcohol use varies from country to country and over time. So we compared monthly drinking among 10th graders over these three data collection periods.

Gretchen Noonan: Great. And what were the findings?

Bruce Simons-Morton: So this first slide shows the countries that had an increase over time in alcohol use. And you can see that Austria went from 53.2. They dipped down in 2002 to 43.4 and back up to 56.5. Belgium had a similar sort of dip, but an overall increase. The Czech Republic showed an increase. Estonia which was under 40 percent shot up over the eight years to 46 percent. Hungary increased fairly substantially, almost 50 percent increase in the percent of 10th graders who report drinking in the last month. Latvia, very large increase over this time. Lithuania. Switzerland increased a bit. And in the UK, went from 59 to 62 percent.

These are countries where there was an increase. Then there were several countries that pretty much did not change or had very moderate changes such as Canada, France, Greenland, which was pretty low to begin with. So was Israel and remains low relative to other countries, Poland and Portugal.

And then in this next slide, these are countries with an overall decrease. Now Denmark had the highest percent in 1998. And still had the highest percentage of any country in 2006. But it had declined by 14 percentage points.

Finland declined, Germany declined, which was interesting because in Germany it's very common for even pre-adolescents to drink a small amount of beer with meals.

So this may be changing a bit. Greece was very high in 1998 and has declined pretty substantially. Ireland, which has a reputation for drinking, is actually sort of middle of the run in terms of 10th grade percent of drinkers, 36 percent in 2006. Norway declined. Russian Federation declined. Sweden declined and the U.S. has one of the lowest overall rates went from 1998 to 36.8 percent down to 28.1 percent.

There was some variability, some variations from boys and girls in all these countries. So in this slide, which is kind of busy, but what we have here is several countries listed and then in the first three bars represent boys from 1998 to 2002 and 2006, and then the next three bars in the green, white and purple represent the girls prevalence of use.

You can see the scale here over these three reporting periods. So in all of these cases, looking at Belgium first, you can see that there was no net change among boys but there was an increase among girls over the reporting period.

Similarly, in the Czech Republic, there was no change for boys, but there was an overall increase for girls. And normally in Estonia -- Hungary showed a fairly large increase among girls and a smaller increase among boys. Israeli girls increased. Latvian girls increased. And Lithuanian girls increased.

So we see this as a very interesting trend that bears further investigation.

Gretchen Noonan: Sounds that way. Now, what are the implications of this research that you just presented to us?

Bruce Simons-Morton: So I think we can conclude that drinking in the U.S. declined among boys and among girls and that drinking varied over time considerably by country and among boys and girls. And drinking increased among girls but not boys in some countries but there was no country in which there was an increase among boys and not girls.

So there is other cross-sectional or cross-European data available from a European study called SPAD. But there's no comparable data set from Europe and North America and available except the HBSC that will allow these kind of comparisons.

And a number of countries now are examining the change in the gender gap based on these data to find out what was going on in their country that might explain why there may be an increase in their country in drinking among girls.

Gretchen Noonan: Sounds like there's a lot of potential in this data set. Could you tell us if there's any plans for other analysis of the substance use data?

Bruce Simons-Morton: The substance use data are really popular, because it's possible to examine associations among them and as well as looking at prevalence in trends. Currently

there's an analysis that has just been completed between the relationship between cannabis use and time spent with friends. You might hypothesize that 10th grade cannabis users might not spend much time with friends but actually the data show that in virtually all the countries cannabis use is associated with an increase or higher rate of time with friends.

So cannabis use may be a social drug among 10th graders. In a second analysis we're looking at trends in cannabis use from 1998 to 2006. In a third study, we are examining the association between adolescent substance use and parent use and parent knowledge. That's a U.S. analysis.

And then we're also examining prevalence of the various substances among urban, suburban and rural use in the U.S.

Gretchen Noonan: That sounds very interesting. I'm looking forward to seeing some results from those analyses. Now I understand that you have just a few resources you'd like to share with our audience. If we can show that slide for a moment.

Bruce Simons-Morton: So here's a couple of useful sites that you might want to look at.

Gretchen Noonan: Great. And links to those resources are also provided on the DataSpeak website. Bruce, thank you so much for your presentation. And as Ron did, would you be able to provide us with some contact information for anyone in our audience who would like to get in touch with you?

Bruce Simons-Morton: Yes, here's my contact information. Feel free to contact me.

Gretchen Noonan: All right. Thank you again to both of our presenters for all the excellent information they provided today. And I just wanted to point out that these slides that you just saw are available to the left of your screen in the download pod. All you do is you highlight the presentation you'd like to download and click the save to my computer button. These are also available on the DataSpeak website.

We're now in the question and answer portion of our program and we're fortunate that both of our presenters were able to stay with us to answer your questions. As I mentioned at the beginning we'll be taking questions both online and on the telephone. To post a question online, as I see that some of you have done already, we have some coming in; you simply enter your question in the field at the bottom of the questions box and hit the enter button. Now Ryan is our operator today. Ryan, could you come on and tell our telephone participants how they can ask a question on the phone.

Operator: Sure. (Caller instructions)

Gretchen Noonan: Okay. That's star 1. While we're waiting for people to queue up there, I'd like to introduce my colleague Vivian Gabor. And she's here to moderate the online questions that are coming in today. They seem to be pouring in. I know that Vivian's been going through them. Do you have any questions that you'd like to start with, Vivian?

Vivian Gabor: Sure, we have a couple of questions about the structure of the survey. I'm going to ask you, Ron, if it's okay to answer these, but Bruce you can chime in. Question from Lisa Liman asks: Does the survey contain items or ways to identify respondents who are children with special healthcare needs?

Ron Iannotti: No, we don't have any questions specifically about chronic illnesses. We actually may add a question like that in the 2009-2010 survey. The only questions about health problems were the ones I mentioned, symptoms like headache, stomach ache, those kinds of things.

Vivian Gabor: Okay. Also related to the structure someone asked if Lacy McNary asks if state level data are available from the survey?

Ron Iannotti: Well, we've tried to assure anonymity for the students, and we actually -- we stratify by census area, and we then randomly select school districts within those census areas and schools and classrooms, et cetera. It is possible to do some analysis by state. However, the sampling design was not set up to actually randomly sample a representative sample of children from each state.

In fact, not every state, because it's random, not every state is represented. So it is difficult. It's probably a better representation of different census regions than it is of any given state.

Vivian Gabor: One more question before we go to the phone questions. Two folks have asked about how the sampling and the results compare with the results of VRSS, specifically YRBS.

Ron Iannotti: Our goal is to sample classrooms and so our mechanism might be different than YRBS. And for the international sample, the target is 11, 13 and 15-year-olds. So we have actually younger kids than the typical YRBS survey. But the goal is to get representative sample children at each of those grades.

I believe YRBS may have a larger sample than we do. But it's still a nationally representative sample.

Gretchen Noonan: Vivian, I was just informed that we don't have anyone on the queue yet on the phone. I want to remind everyone it's star 1 to go ahead and ask a question on the phone. As Ryan indicated, you might have to pick up your handset if you're on speaker to make that work. And in the meantime, Vivian.

Vivian Gabor: We do have more questions.

Gretchen Noonan: I'm sorry?

Vivian Gabor: We do have some more questions that people have emailed.

Gretchen Noonan: Online? Go right ahead while we're waiting for people to queue up on the phone.

Vivian Gabor: Larry Cobler from Ann Arbor. This is for you, Bruce, is there a relationship between alcohol and cannabis use, is there overlap in the data?

Bruce Simons-Morton: We haven't looked at that internationally. In the U.S. there is an association. That is, if you smoke marijuana you're likely to also report drinking alcohol and the reverse is true.

And this has been pretty consistent in other studies that have looked at this question. The relationship is not really powerful, though. The correlation I don't recall. But I would say that it's in the order of .3 where 1.0 would be a perfect association.

Vivian Gabor: Thank you. Melissa Lurey asks, regarding reporting of cannabis use. Were you able to account for the social desirability issue; for instance, adolescents in the Netherlands may be more honest in reporting the use compared to the use in the U.S.A. or vice versa.

Bruce Simons-Morton: This is always a bit of a concern in any survey. And I think that this is a particular concern when you ask about marijuana use among younger children. By 10th grade, I think the reporting is pretty good. We know from data on smoking where you can sort of verify responses by various biological markers such as saliva, that high school aged kids report pretty honestly about their substance use. We don't have similar markers for cannabis. But I feel pretty confident about the cannabis reports in the U.S. and probably in other countries.

And incidentally, which raises another sort of interesting issue. We were just in the Netherlands at an HBSC meeting. There was a lot of discussion about cannabis. And the sentiment, I don't really have data on it, but the sentiment is cannabis is not really just because it's legal for over 18-year-olds to smoke cannabis, it's not particularly more socially acceptable than it is in the U.S.

Vivian Gabor: Okay. Thank you very much.

Gretchen Noonan: Vivian should we check in with Ryan quickly and see if we have anyone on the telephone.

Operator: Yes, we do. Our first question comes from the line of Cheryl Hunter with the State of California Children's Healthcare.

Cheryl Hunter: Hi. I just recently heard, well, as an aside before I even talk about it, this survey was done at Columbia University on mental health behaviors and personality disorders in early -- mid adolescents and college-aged children but it was done on a state-by-state basis.

My question is has any of this survey information been correlated with other mental health or psychiatric disorders in these age groups?

Vivian Gabor: That question is to you.

Ron Iannotti: That's a very good question. We actually have not done that yet. It's a very rich data set. And we are trying to answer a number of different questions. The 2005-2006 survey does include some items that assess depression in the children. And we started linking that scale to some of the other variables we measure like medicine use and some other things. But we haven't linked it to stat data yet.

Vivian Gabor: Thank you.

Ron Iannotti: Thank you.

Gretchen Noonan: Ryan, do we have anyone else on the phone queue?

Operator: (Caller instructions) We do have another question that just came in. Comes from the line of Al Abrenowitz with Maternal Child Health.

Al Abrenowitz: Yes, I have a question. Yesterday on the news there was another survey that came up around children. And some of the incidents and changes in three categories, lying, cheating and stealing.

And I was wondering if any of the data on bullying could be tied to any of these indicators, or those are indicators that you are currently collecting but haven't reported on.

Ron Iannotti: We haven't actually assessed or moral issues. We mainly focused on bullying and violence. And I'm unfamiliar with the survey that you just mentioned. I'll have to check my journals to make sure I see that.

So we haven't explored that.

Vivian Gabor: Thank you.

Gretchen Noonan: Vivian, if you'd like to go back to some of the online questions that are coming in.

Vivian Gabor: Okay. We certainly do have a few here. From Al Conkel. He or she asks how do you isolate mental health behavioral issues from sedentary lifestyle findings?

Ron Iannotti: That's a good question. The results I presented on sedentary behavior we were actually surprised because no one has really looked very much at sedentary behavior and potential health correlates of sedentary behavior.

And the pattern suggests that sedentary behavior at least -- and these are correlation data so we don't know the directional relationship, but certainly the associate of sedentary behavior suggests potential lower quality of life, lower quality mental health being associated with sedentary behavior, body image, self-esteem, quality of life.

And even relationships with parents. The only positive indicator with sedentary behavior, which I didn't report on, was quality of peer relationships, both physical activity and sedentary behavior had a strong relationship to quality of peer relationships.

So the sedentary behavior the kids are engaged while playing computer games may involve some peer aspect or some social aspect that we need to explore. But otherwise sedentary behavior I would say appears to be putting kids at risk for potential mental health problems.

Vivian Gabor: Thank you. One design question, I guess, or actually a response rate. What was the response rate among children in the U.S. and internationally and how did they differ?

Ron Iannotti: That's a good question. I don't have on the tip of my tongue what the response rate was for different countries in the U.S. We had about 80 percent of the kids in the classrooms consenting and responding.

So it was reasonably good.

I don't know what those are internationally, that's one of those things we keep trying to gather this data and share it and I believe we're still trying to get all of the countries to provide that information. But I don't know what the response rate -- in some countries -- well, in some countries they can sample every child in the country because the countries are so small, or because the government has committed to the survey, it's a required part of the school curriculum and the response rates are incredibly high.

And then others like the U.S. and Canada, we need to get permission all the way down the line of command from the school district to the school principal to the parents and the child. And our response rates are a bit lower.

If that person e-mails me I'll try and find out the answer for the other countries.

Vivian Gabor: Okay. We will after -- we will be sending out follow-up questions to the presenters. So if anything is not able to be included today. And we'll include those answers on the website.

Gretchen Noonan: Vivian, I believe we might have someone on the phone. Ryan, do we have anyone in the queue?

Operator: Yes, our next question comes from the line of Marian Hutchins with the County of Humboldt Public Health.

Gretchen Noonan: Hello?

Gretchen Noonan: (Caller instructions).

Vivian Gabor: Hello, can anyone hear me?

Gretchen Noonan: Yes.

Doreen Espinosa: Okay. Hi. I have a question. I'm actually not Ms. Hutchins; I'm a colleague. My name is Doreen Espinosa. I have a question for Dr. Iannotti. Have you been able to identify any other factors on the relationship between eating breakfast and weight control that might help us understand that?

For example, are these kids from a different SES? Are there other behavioral factors that might explain that relationship a little more in depth?

Ron Iannotti: That's a very good question. We haven't looked at breakfast eating in isolation and looked at that relationship between breakfast eating and adiposity. But we will be exploring that.

It's interesting, because there's not a lot research -- a lot of recommendations for breakfast eating. And it's only recently that people have actually tried to evaluate why is it eating breakfast has this positive effect in terms of reducing the risk of overweight. And also currently has a very positive effect on school performance.

So I think these are areas for future investigation and we'll be looking at that in our data as well.

Vivian Gabor: Thank you.

Gretchen Noonan: Ryan, do we have anyone else on the phone?

Operator: We have one more question, comes from the line of Gulner Friedman from CDC.

Gulner Friedman: Yes, I was wondering in the countries that -- did you ask the questions in English, or did you ask the questions in their own native language for other countries?

Ron Iannotti: That's a good question. They're in native language. So the questionnaire is developed by all the countries. We develop it in English in our conferences that we held, example in the Netherlands. Recently, they're conducted in English. The items are then translated into the native language, and back-translated into English to make sure they still have the meaning. So independently they're translated and independently back translated so it's always in the native language. And even in the U.S. we actually had -- we translated our survey into Spanish so that children in the border states would have the opportunity if they needed to answer the survey in Spanish.

We made sure it was the version of Spanish that's typically spoken in those areas. We had actually only I think less than 30 kids who actually took advantage of that. So most of the kids in the U.S. schools anyway feel comfortable with taking it in Spanish, and these kids, as I said, are 11 and older.

Vivian Gabor: Thank you.

Gretchen Noonan: Vivian, would you like to go ahead with a few more of the online questions. I think we have a few more minutes.

Vivian Gabor: Thank you Gretchen. This one question relates to -- was there any socioeconomic status data gathered, and an association drawn between substance use and socioeconomic status.

Bruce Simons-Morton: This is Bruce. There are relationships but it's a little surprising that most of these relationships favor higher substance use among higher SES populations. This has been very consistent among adolescents in the U.S. in a variety of surveys.

So Anglo American youth tend to smoke at a higher rate than African American or Hispanic. Alcohol use is higher among younger adolescents and even somewhat higher among high school-aged kids.

And when you look at that by socioeconomic status, you get similar kind of patterns. So that's been true in HBSC and other surveys.

Ron Iannotti: I think I forgot to mention this in the beginning, but one of the advantages to the U.S. survey is that we actually oversample African American and Hispanic youth so our prevalence estimates for those groups are reasonably accurate and it enables us to look more carefully at not just the minority effects but also SDS effects within groups.

Gretchen Noonan: Thank you. Vivian, I think we might have time for one more online question.

Vivian Gabor: Okay. We have a question about the physical activity question itself. How was physical activity measured or asked in this survey?

Ron Iannotti: We have three items that we use. And these have been -- for any item to be in the HBSC survey it has to have been validated. Validation studies in more than one country. It has to be a valid item that works in other cultures as well.

We have three items. One asked about the number of hours of physical activity in a typical week. So it's over seven days how many hours of physical activity do you get. And then we have two other questions that ask about the amount of time for physical activity more intense, vigorous physical activity, amount of time spent, and then also how frequently they engage in episodes of vigorous physical activity. So we have three items measuring physical activity.

Gretchen Noonan: Excellent. Thank you so much. I believe that is all the time we have for discussion today. I just want to thank, again, Dr. Ron Iannotti and Dr. Bruce Simons-Morton for joining us today. If you think of more questions, you can submit those to us via e-mail through the end of the week, and that is the e-mail address is mchirc@altarum.org. That's a-l-t-a-r-u-m. We'll respond to those questions as soon as possible.

This program archive will be available on the DataSpeak website in the next few weeks so you can access it at your convenience. I'd like to point out that I believe we have a few questions today that weren't answered. And we'll try to get some answers for you and post those along with the archives. We'll be broadcasting several more DataSpeak programs in the coming months including a program highlighting soon to be released results of the 2007 National Survey of Children's Health.

Announcements about these future DataSpeak programs will be sent out via e-mail, or you can check the DataSpeak website in the coming months. That's mchb.hrsa.gov/mchirc/dataspeak. Finally, before you log out, we would greatly appreciate you taking a moment to provide us with feedback on today's program. You can do so by clicking on the program evaluation link on the screen. A short survey will pop up in the new window. We hope to see you in the new year. This program is now adjourned.

Operator: This concludes today's teleconference. Thank you all for your participation.